A BLUEPRINT FOR CORE SOCIAL INDICATORS

MEETING SOCIAL DATA NEEDS FOR THE 1980s

URBAN DOCUMENTATION CENTRE
RESEARCH UNIT FOR URBAN STUDIES
McMASTER UNIVERSITY
HAMILTON, ONTARIO

Andrew S. Harvey
E. Grant MacDonald
W. Stephen Macdonald
David H. Elliott
Susan M. Clark
K. Scott Wood

INSTITUTE OF PUBLIC AFFAIRS
DALHOUSIE UNIVERSITY
HALIFAX, CANADA

ISBN 0 88926 021 4
1980 $7.50

Canadian Cataloguing in Publication Data

Main entry under title:
A Blueprint for core social indicators

Bibliography: p.
ISBN 0-88926-021-4

1. Social surveys - Canada. 2. Social indicators - Canada. 3. Social science research - Canada - Methodology. I. Harvey, Andrew S., 1939-
II. Dalhousie University. Institute of Public Affairs.

HN29.B68 317.1'07'23 C80-094739-8

Copyright © 1980
Institute of Public Affairs
Dalhousie University
Halifax, Canada

FOREWORD

The present study, undertaken at the request and with the support of Statistics Canada, reflects the long-standing interest of the Institute of Public Affairs in the collection and analysis of data for the development of social indicators. As it has come to be recognized that economic measurements by themselves provide only a partial overview of what is happening in society, social indicators have assumed an increasingly important role, and are now accepted as essential input for a wide variety of policy decisions.

The current work focuses on the methodology of the collection of data at the household level. It is at this level that the primary information needed to develop social indicators is to be found. The study builds on the accumulated experience of the Institute of Public Affairs both in the design and conduct of household surveys as well as in the whole area of social indicator methodology.

Kell Antoft
Director

PREFACE

During the last decade or two, the focus of public policy has clearly moved from a rather singular preoccupation with economic matters to an awareness of the social, as well as economic, dimensions of the issues of our times. Our heightened social concern has created enormous demands for new types of information and data to help us understand our society, the problems as we perceive them today, and formulate and implement relevant public policy.

The establishment of collection systems for new social information is a difficult task for the responsible agency and requires a significant period of time to plan, redeploy personnel, and/or obtain needed funds.

As the need to augment economic data with more and better social data grows, statistical agencies will be continually pressured to provide it. Social data are derived from all societal institutions - households, business, government, and the non-profit sector - and its value is greatly enhanced and the costs of collection minimized if individual bits of data can be related to each other in a meaningful way. The purpose of a social accounting framework is to organize in a systematic fashion those data elements which are available. Additionally, such a framework highlights gaps in the available information, providing clues to the additional types of data which must be obtained.

Social data may arise either as a result of administrative activity which requires the collection and recording of certain basic data or as a result of surveys generated by recognized data needs. Each of the above-mentioned societal institutions generates administrative data. Additionally, each of these institutions can be considered a subject for surveying.

This Blueprint focuses on only one of the institutional sectors described above; namely, households. Its purpose is to provide a framework and rationale for the collection of social data at the household level. Although this document begins to explore the data collection methodology and timing relevant to data collection systems, it is simply a beginning in what is a highly complex area. In some cases, it would be possible to move from our Blueprint into the framing of survey questions and the collection of data while, in other areas, it would be necessary to pursue to a greater extent prior questions of exact need, feasibility, etc.

Our major hope is that this Blueprint will provide provocative input into the important and continuing debate over the collection of social data in the 1980s.

CONTENTS

FOREWORD iii

PREFACE v

TABLES x

FIGURES xi

PART I

FRAMEWORK FOR A BLUEPRINT 1

INTRODUCTION 1

FRAMEWORK 1

UNITS OF ANALYSIS 2
TYPES OF ANALYSIS 2
SUBJECTS OF ANALYSIS 3
LEVELS OF ANALYSIS 13

BIBLIOGRAPHY: FRAMEWORK FOR A BLUEPRINT 15

PART II

CONCERNS, SUB-CONCERNS AND INDICATORS 17

HEALTH 18

SUB-CONCERN: HEALTH STATUS 18
SUB-CONCERN: HEALTH RISKS 19
SUB-CONCERN: THE HEALTH CARE SYSTEM 20
SUB-CONCERN: PERSONAL CARE 21

BIBLIOGRAPHY: HEALTH 21

THE FAMILY 23

SUB-CONCERN: MARITAL STATUS 24
SUB-CONCERN: FERTILITY 25
SUB-CONCERN: HOUSEHOLD COMPOSITION 27
SUB-CONCERN: CARE OF CHILDREN 27
SUB-CONCERN: HOUSEHOLD PRODUCTION 29
SUB-CONCERN: DIVISION OF LABOUR IN THE HOUSEHOLD . . . 30
SUB-CONCERN: KINSHIP TIES 31
SUB-CONCERN: INHERITANCE OF ASSETS FROM KIN 32

BIBLIOGRAPHY: THE FAMILY 32

EDUCATION, TRAINING AND SKILL DEVELOPMENT 35

SUB-CONCERN: EDUCATION, TRAINING AND SKILL STATUS OF THE POPULATION 36
SUB-CONCERN: OPPORTUNITIES FOR EDUCATION, TRAINING AND SKILL DEVELOPMENT 37
SUB-CONCERN: USE OF EDUCATION, TRAINING AND SKILL DEVELOPMENT PROGRAMS 39
BIBLIOGRAPHY: EDUCATION, TRAINING AND SKILL DEVELOPMENT 39

EMPLOYMENT 41

SUB-CONCERN: CURRENT EMPLOYMENT OPPORTUNITIES 42
SUB-CONCERN: CURRENT MARKET STATUS OF WORKERS 42
SUB-CONCERN: PATTERN OF WORK TIME 44
SUB-CONCERN: INTERGENERATIONAL SOCIAL MOBILITY . . . 44
SUB-CONCERN: CAREER MOBILITY 47
SUB-CONCERN: QUALITY OF WORKING LIFE 47

BIBLIOGRAPHY: EMPLOYMENT 51

PERSONAL ECONOMIC SITUATION 55

SUB-CONCERN: FINANCIAL SITUATION 55
SUB-CONCERN: "STANDARD OF LIVING" 56
SUB-CONCERN: RELATIVE INCOME 56

BIBLIOGRAPHY: PERSONAL ECONOMIC SITUATION 57

CONSUMPTION 59

SUB-CONCERN: CONSUMPTION ACTIVITY 59
SUB-CONCERN: CONSUMER SATISFACTION 61

BIBLIOGRAPHY: CONSUMPTION 61

LEISURE 63

SUB-CONCERN: AGGREGATE LEISURE ACTIVITY 64
SUB-CONCERN: "CULTURAL" ACTIVITIES 68
SUB-CONCERN: OUTDOOR RECREATION 70
SUB-CONCERN: INDOOR RECREATION 70
SUB-CONCERN: ORGANIZATIONAL PARTICIPATION AND VOLUNTEERISM 71
SUB-CONCERN: SOCIALIZING 71
SUB-CONCERN: HOLIDAYS 71

BIBLIOGRAPHY: LEISURE 72

RESIDENTIAL ENVIRONMENT 75

SUB-CONCERN: ACCESSIBILITY 77
SUB-CONCERN: DWELLING UNIT 78

SUB-CONCERN: COMMUNITY SERVICES 78
SUB-CONCERN: QUALITY OF NEIGHBOURHOOD 79

BIBLIOGRAPHY: RESIDENTIAL ENVIRONMENT 80

RESIDENTIAL MOBILITY 81

SUB-CONCERN: LOCAL MOVEMENT 81
SUB-CONCERN: INTERNAL MIGRATION 84
SUB-CONCERN: INTERNATIONAL MIGRATION 84

BIBLIOGRAPHY: RESIDENTIAL MOBILITY 85

POLITICS 87

BIBLIOGRAPHY: POLITICS 91

RELIGION 93

BIBLIOGRAPHY: RELIGION 94

JUSTICE 95

BIBLIOGRAPHY: JUSTICE 96

PART III

DESIGN, TIMING AND INSTRUMENTATION 97

CONSIDERATIONS OF DESIGN 97

UNITS OF DATA COLLECTION AND ANALYSIS 97

SAMPLING 98

SURVEY TYPE 99

INSTRUMENT CONSIDERATIONS 99

CONSIDERATIONS OF TIMING 100

FREQUENCY 100
SEQUENCE 101
TEMPORAL COMPATIBILITY 102
SEASONALITY OF THE INDICATOR 102

OTHER CONSIDERATIONS OF TIMING 103

TEMPO OF WORK 103
FLEXIBILITY 103

CONSIDERATIONS OF INSTRUMENTATION 103

TIME DIARIES 105
LIFE HISTORIES 107

PROGRAM OF DATA COLLECTION 109

BIBLIOGRAPHY: DESIGN, TIMING AND INSTRUMENTATION 115

TABLES

PART I

I-1 SOCIAL INDICATOR SUBJECT AREAS - SELECTED EXAMPLES 7

I-2 FRAMEWORK FOR CORE SOCIAL INDICATORS 8

I-3 EXAMPLES OF AREAS OF DOMAIN 14

PART II

II-1 AVERAGE DURATION AND PARTICIPATION IN SECONDARY DISCRETIONARY TIME ACTIVITIES AND TOTAL PARTICIPATION IN DISCRETIONARY TIME ACTIVITIES HALIFAX, 1971-72 66

II-2 SATISFACTION AND PARTICIPATION IN SELECTED LEISURE ACTIVITIES HALIFAX, 1971-72 69

II-3 REASON FOR MOVE, BY TYPE OF MOBILITY, FOR MALE MOVERS 18 TO 64 YEARS OLD: UNITED STATES, MARCH 1963 83

PART III

III-1 INDICATORS REQUIRING TIME ALLOCATION DATA 107

III-2 LIFE SPHERES RECORDED IN 36 YEAR LIFE HISTORY STUDY, NORWAY 108

III-3 INDICATORS RECOMMENDED FOR ANNUAL COLLECTION 112

III-4 INDICATORS RECOMMENDED FOR BIENNIAL COLLECTION . . . 113

III-5 INDICATORS RECOMMENDED FOR QUINQUENNIAL COLLECTION 114

FIGURES

PART I

I-1 DOMAINS OF THE LIFE-SPACE 3

I-3 THE ELEMENTS OF ATTITUDE 12

PART III

III-1 MAJOR INSTRUMENT GROUPINGS 104

III-2 LIFE HISTORY MATRIX 110

PART I

FRAMEWORK FOR A BLUEPRINT

INTRODUCTION

This report presents a blueprint for the development, over a ten-year period, of core social information to monitor significant social trends in Canada. The report examines SOCIAL INDICATORS and STATISTICS over a broad range of concerns. Its primary task is to identify the kinds of social information that should be collected in Canada to complement the information collected from administrative sources, from the Census and from already established surveys. This report focuses particularly on the kinds of social information which are well suited to being captured by means of an expanded household sample survey program.

Social information about Canada is collected in order to gain a better understanding of the society, its condition, and how that condition is changing over time. While a great deal is already known about Canada and its people, the list of unknowns remains considerable. The task addressed by this report, however, is not to provide an outline of all the social information which could be collected; rather, it is to suggest some avenues for development and to look at some of the initial steps that must be taken in improving our fund of social information. Such improvements must first involve additions to the base of information at a general level, since there are a number of relatively fundamental social concerns which have received no regular or official attention. A desire for improvements in the level of understanding of important changes in society may, however, necessitate going beyond the collection of information at a general level to more specialized investigations on selected subjects. Improvements in the base of social information, as suggested herein, may involve substantial additions to the information on some matters of social concern and few additions in other matters.

FRAMEWORK

The purpose of this project is to construct a blueprint for the collection of social information. A blueprint is basically a detailed plan built around a structural arrangement of basic and component parts that can be referred to as a "framework". There are a number of simple criteria for the development of a framework, whether it be organizational or procedural, or both as in this case. A framework should be understandable, functional, and, ideally, of enduring relevance.

There are two dimensions of the organizational framework presented here. The first involves defining the breadth of the subject matter to be incorporated into the blueprint, and the second is identifying, using as rational a process as possible, the depth of the subject matter from generalized, abstract concepts down to specific subjects.

The development of a social information base must be viewed in perspective. There is no profit in collecting information for information's sake. An ultimate objective in seeking better social information is the increased capacity to improve the society that comes with a deeper understanding. Whether we make a close connection or not, there is a very real relationship between knowledge of society and ability to deal successfully with the present or prepare for the future.

In Social Indicators: Toward the Measurement of Quality of Life (DREE, 1972:68-78) a four-way classificatory framework is identified. This classification involves four "quality of life" axes: unit of analysis, type of analysis, subject of analysis and level of analysis. From this framework we have chosen the individual and household as the main units of analysis, social situation and social well-being as the types of analysis, a wide range of component social concerns as the subjects of analysis, and both the general and component welfare as the levels of analysis.

UNITS OF ANALYSIS

Because this is a blueprint for the collection of household survey data, the "units of analysis" are quite logically the household or family and the individual.* Part III of the report discusses the choice of an appropriate unit of analysis in more detail.

TYPES OF ANALYSIS

Two different aspects of society are to be measured; (1) the status of society - the state of matters as they stand unjudged and unevaluated,

---

*It should be noted that a number of different definitions of family and household are regularly employed by Statistics Canada, depending on purpose; e.g., Census family, economic family, family household and non-family household. No effort is made to distinguish between them here; the reader is referred to Statistics Canada, Dictionary of the 1971 Census Terms, Ottawa, December, 1972. The only essential point of interest is that the concept of family refers to a group of related individuals living together in a dwelling, while the concept of a household refers to "a person or group of persons occupying one dwelling".

and (2) social system performance - what is commonly referred to as well-being or "quality of life"; where the focus is on the state of matters as they stand judged and evaluated.

The first type of analysis used includes both objective and subjective social measures; that is, both indicators of the actual and perceived situation, and indicators of values, beliefs and attitudes. Generally, such indicators will be seen to describe both the physical and underlying psychological state of society.

The second type of analysis involves subjective social measures only; that is, indicators of individual well-being, of the perceived situation and satisfaction with it. Generally, these are indicators which reflect an individual's evaluation of his situation or the state of society. The relationship between the various measurement domains is illustrated in Figure I-1:

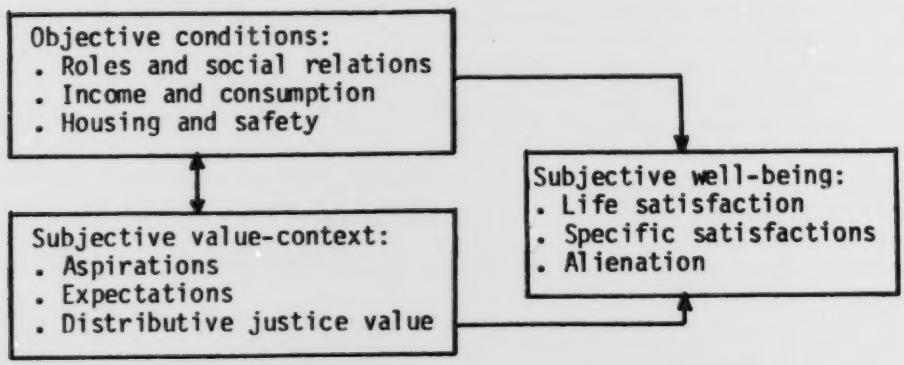


Figure I-1

DOMAINS OF THE LIFE SPACE

SOURCE: (Land, 1975: 32).

SUBJECTS OF ANALYSIS

Social information, whether it be collected from administrative records, periodic censuses, or household sample surveys, can be organized into a single organizational framework. Such a framework must, however, allow for the classification of social information by the subject of analysis.

Most of the work on frameworks for social statistics design has been done with respect to national and international indicators of well-being or quality of life. Although there are no definitive works

in the field, the considerable amount of effort expended at the conceptual level in devising organizational frameworks for social reporting makes an examination of this literature essential.

Survey-based information can and should be viewed as an integral part of a general social indicator framework. The work already done by the OECD and its member nations plus the great deal of published social science literature on indicators are invaluable references for the first task of selecting the major subject areas of social inquiry. A review of this material reveals the implicit application of three criteria for devising such subject areas. First, the areas chosen, regardless of the terminology used, should encompass all conceivable social concerns. In other words, the set of subject areas should reflect a holistic view of society:

1. Subject areas should be jointly exhaustive of all concerns and characteristics which describe human society.

Second, some measure of rationality demands a progression from the abstract to the more concrete type of concepts. The adoption of a number of abstract concerns allows for the inclusion of the more concrete concerns in more than one subject area. The more abstract the subject area, the greater the tacit recognition that no subject of social inquiry can really be considered a mutually exclusive category. From this it follows that one must begin with a framework divided into conceptually like parts, that each subject area be described, as much as intuitively possible, at comparable levels of abstraction:

2. One subject area should be conceptually similar to any other.

Finally, the subject areas should ideally be determined without consideration of the type of concerns that might be included in them. This means essentially that the subject areas chosen should not result to any great extent from the determination or anticipation of their content:

3. Subject areas should be selected without regard to the indicators that might be included in them. The subject areas must first make sense as a set of major areas descriptive of society.

The above criteria are such that they can be met by a number of different subject area sets. While the specification of the major areas of interest is largely a matter of judgement, a review of the frameworks found in the literature may be helpful in ensuring that what is chosen here is compatible with the work that has already been done in the field. Such a review would reveal some patterns from which a set of suitable subject areas can be distilled.

However, while some common themes run through most of the literature, different levels of abstraction are apparent in the choice

of subject classification in studies surveyed here. Take, for example, H.H. Koelle's study on the determination of a definition of the quality of life. He identifies four goal areas: the material quality of life, the physical quality of life, the mental quality of life, and the spiritual quality of life (Koelle, 1974). Manzer's socio-political work on Canada transforms Maslov's five areas of human need into welfare, security, fraternity, equality and liberty (Manzer, 1974). At the other extreme is the Department of Regional Economic Expansion, identifying twelve subject areas (DREE, 1972:73), and British Central Statistical Office, ten (Social Trends, 1976), Table I-1.

The organizational framework around which social information may be understood can be conceptualized along the lines of one or more different perspectives. The DREE work cited above follows a generalized policy or program area type arrangement. Other frameworks are structured around certain "goal areas" aligned with either a theoretical set of human needs or "areas of well-being".

Despite the fact that subject areas are found at different levels of abstraction throughout the literature, a list of the major areas of social inquiry can be distilled from among the various examples surveyed. The configuration of such a list is based not only on the frequency with which certain subjects are cited, but on what Christian (1974) and Harland (1971) might call a theoretical-speculative approach.

As a theoretical perspective, a set of twelve social concerns has been adopted. A social concern, as used here, "represents a goal of well-being". Not too much significance need be attached to the label, since it is the specification and operationalization of the concept that is important. From a more speculative perspective we must cast social concerns in a futuristic context, thereby speculating on what might become important at some future point in time.

From the literature we have developed a set of organizational components consisting of areas of concern and sub-concerns, as shown in Table I-2.

A social concern is defined here as an area into which the goals of well-being may fall. A sub-concern is simply a component part of a particular area of social concern. The framework may be further broken down into social indicators and social statistics, as shown in Figure I-2 below.

Social indicators, as used here, are defined as a representation of the measurable aspects of social concerns and sub-concerns. A social indicator is, then, a "relative notion to be measured" (Kamrany and Christakin, 1970:208) and not a measurement or statistic itself. "While Social indicators are more measurable than social concerns, they are still abstract from a measurement perspective (Wilcox et al., 1976:80)."

They are seen as combinations of referents which operationalize the more general or abstract concepts described here as concerns and sub-concerns.

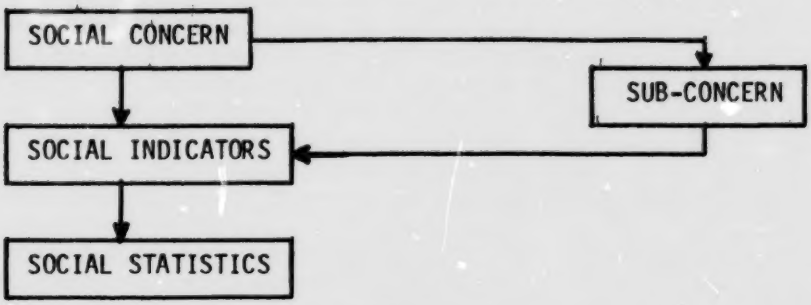


Figure I-2

SOCIAL CONCERN COMPONENTS

Social statistics are required for each indicator and become the empirical referents for each indicator. Social statistics can be indices, composites, ratios, rates or frequencies which measure the multidimensional aspects of each indicator.

A number of fairly standard criteria are normally used in the selection and evaluation of indicators. A list of five recommended criteria and an explanation of each follows.

1. Validity

   Although an elusive concept, this criterion refers to the extent to which the measure reflects the phenomenon or concern it is intended to. That is, the indicator should fit the concept of the social concern as closely as possible. The validity of the measure can be estimated by seeing if it behaves as one would expect the phenomenon to behave, and by looking at other measures of the same concern, to see if they also move in the same direction(s).

2. Sensitivity

   This criterion, although related to validity, is a bit more specific. Sensitivity refers to the ability of the indicator (or set of indicators) to reveal quickly changes in the concern which is being measured. That is, the extent to which a change in the element of well being under consideration, other elements of well-being remaining equal.

Table I-1

SOCIAL INDICATOR SUBJECT AREAS - SELECTED EXAMPLES

H.H. Koelle (1974)
- The Material Quality of Life
- The Physical Quality of Life
- The Mental Quality of Life
- The Spiritual Quality of Life

Manzer (1974)
- Welfare
- Security
- Fraternity
- Equality
- Liberty

Canada (Perspective Canada)

Population	Income
Family	Consumption
Health	Environment
Education	Housing
Work	Language
Leisure	Crime and Justice

DREE
- Culture
- Economics
- Education
- Employment
- Environment
- Health
- Housing
- Legal Justice
- Public Safety
- Recreation
- Social Security
- Transportation & Communication

H.E.W. (U.S.)
- Health and Illness
- Social Mobility
- Physical Environment
- Income and Property
- Public Order and Safety
- Learning, Science and Art
- Participation and Alienation

OECD
- Individual Development Through Learning
- Employment & Quality of Work Life
- Time and Leisure
- Personal Economic Situation
- Physical Environment
- Personal Safety, the Administration of Justice
- Social Opportunity and Participation

Britain (1976)
- Population
- Households
- Education
- Employment
- Personal Income and Wealth
- Personal Expenditure
- Housing
- Environment
- Leisure
- Social Participation

Sweden (1974)
- Health
- Crime and Justice
- Education
- Employment Structure and Development
- Private Consumption
- Housing
- Leisure
- Population and Family Structure

Table I-2

FRAMEWORK FOR CORE SOCIAL INDICATORS

HEALTH

SUB-CONCERN:	HEALTH STATUS
SUB-CONCERN:	HEALTH RISKS
SUB-CONCERN:	THE HEALTH CARE SYSTEM
SUB-CONCERN:	PERSONAL CARE

THE FAMILY

SUB-CONCERN:	MARITAL STATUS
SUB-CONCERN:	FERTILITY
SUB-CONCERN:	HOUSEHOLD COMPOSITION
SUB-CONCERN:	CARE OF CHILDREN
SUB-CONCERN:	HOUSEHOLD PRODUCTION
SUB-CONCERN:	DIVISION OF LABOUR IN THE HOUSEHOLD
SUB-CONCERN:	KINSHIP TIES
SUB-CONCERN:	INHERITANCE OF ASSETS FROM KIN

EDUCATION, TRAINING AND SKILL DEVELOPMENT

SUB-CONCERN:	EDUCATION, TRAINING AND SKILL STATUS OF THE POPULATION
SUB-CONCERN:	OPPORTUNITIES FOR EDUCATION, TRAINING AND SKILL DEVELOPMENT
SUB-CONCERN:	USE OF EDUCATION, TRAINING AND SKILL DEVELOPMENT PROGRAMS

EMPLOYMENT

SUB-CONCERN:	CURRENT EMPLOYMENT OPPORTUNITIES
SUB-CONCERN:	CURRENT MARKET STATUS OF WORKERS
SUB-CONCERN:	PATTERN OF WORK TIME
SUB-CONCERN:	INTERGENERATIONAL SOCIAL MOBILITY
SUB-CONCERN:	CAREER MOBILITY
SUB-CONCERN:	QUALITY OF WORKING LIFE

PERSONAL ECONOMIC SITUATION

SUB-CONCERN: FINANCIAL SITUATION
SUB-CONCERN: "STANDARD OF LIVING"
SUB-CONCERN: RELATIVE INCOME

CONSUMPTION

SUB-CONCERN: CONSUMPTION ACTIVITY
SUB-CONCERN: CONSUMER SATISFACTION

LEISURE

SUB-CONCERN: AGGREGATE LEISURE ACTIVITY
SUB-CONCERN: "CULTURAL" ACTIVITY
SUB-CONCERN: OUTDOOR RECREATION
SUB-CONCERN: INDOOR RECREATION
SUB-CONCERN: ORGANIZATIONAL PARTICIPATION AND VOLUNTEERISM
SUB-CONCERN: SOCIALIZING
SUB-CONCERN: HOLIDAYS

RESIDENTIAL ENVIRONMENT

SUB-CONCERN: ACCESSIBILITY
SUB-CONCERN: DWELLING UNIT
SUB-CONCERN: COMMUNITY SERVICES
SUB-CONCERN: QUALITY OF NEIGHBOURHOOD

RESIDENTIAL MOBILITY

SUB-CONCERN: LOCAL MOVEMENT
SUB-CONCERN: INTERNAL MIGRATION
SUB-CONCERN: INTERNATIONAL MIGRATION

POLITICS

RELIGION

JUSTICE

3. Comparability (Reliability)

An indicator should allow one to judge whether an improvement or deterioration has taken place over time with respect to a particular concern (intertemporal comparability). In order to assess the breadth of the differences over time, indicators should be measured with cardinal as well as ordinal scales.

The indicators should also permit broad and reasonable comparisons with the social information collected by other nations (international comparability). Towards this end, it has already been agreed that the development of social indicators will be in keeping with the general work outlined by the OECD.

4. Possibility of Aggregation and Disaggregation

The social indicators must be capable of revealing not only national averages, but also finer divisions; e.g., by region, province, ethnic or language group, urban/rural, etc.

To be appropriate for disaggregation, an indicator (or set of indicators) must be a comprehensive, not partial, representation of the social concern which they seek to measure.

5. Flexibility

An inherent attribute of most indicators is that they are revealing, directly or indirectly, of a number of social concerns, even though they may ostensibly be used to measure only one. Most indicators are therefore flexible, available for use for a wide variety of purposes and in a variety of concatenations. In cases where there is a choice between a flexible and inflexible measure both meeting the other criteria to a reasonably equal extent, the former should be chosen.

Social indicators generally fall into one of two categories: objective indicators and subjective indicators. Much attention has been paid in Canada to the observable characteristics of Canadian life, to what has often been referred to as "hard data". Many researchers have pointed to the inadequacy of a strictly quantitative approach to social reporting. There has been a strong tendency in this country and others to assess the status of national life and important, subtle changes in the community by examining indicators of only those things which are easily reduced to finite units thus measuring only part of, or a poor reflection of, the subject of interest.

There is a real need in Canada to pay attention to "subjective" as well as "objective" data. Subjective or "soft" indicators are essential

for measuring some very important aspects of Canadian society. Indeed, the introduction of "psychological variables" in our scheme of social reporting should now be seen as an essential part of any inquiry into the quality of life or cultural change.

The distinction between objective and subjective indicators is not always an easy one. There has been, and is, confusion over whether these terms apply to the type of measure or to what is being measured. For the purposes of this report, the terms objective and subjective refer to the nature of what is being measured; to the nature of the object or subject of measurement. Objective indicators measure objective social conditions or characteristics of the individual or family which can be observed or readily verified. Subjective indicators focus on the measurement of attitudes, perceptions, beliefs and values. It is not quite accurate, however, to suggest that subjective indicators are "the subjective evaluations of objective conditions". (Campbell et al., 1976) An individual's beliefs or values do not necessarily have an evaluative or judgemental quality to them. A belief, for instance, in freedom of speech says little about the quality of life or individual well-being by itself. Yet this belief may be of as much interest as its related qualitative aspect addressed by a question such as "Do we have enough freedom of speech?" While attitudes cannot be called objective, they are a very real part of the social fabric; of the social situation.

The use of subjective measures has been quite popular in the field of quality of life (QOL) indicators. In the QOL literature attention to the subjective elements of well-being has usually involved the measurement of levels of life satisfaction.

The concept of satisfaction is part of a broader concern about individual attitudes. There is little agreement in the social psychology literature as to how attitudes should be conceptualized. This paper lays no claim to having resolved the matter, even insofar as satisfying our own purposes is concerned. There is some concensus that an attitude is both a position and disposition, an opinion on and towards some matter. It may be a state of mind, or form of behaviour or conduct indicating opinions or purpose.

Attention must focus on the concept of satisfaction, for it is that part of attitude or that reflection of attitude that is most revealing of the level of individual well-being. Satisfaction as used here can be defined as the discrepancy between an individual's aspirations and perceptions. While some level of dissatisfaction with one's own situation or the situation of others (e.g., national affairs) must be regarded as normal and healthy, high levels of dissatisfaction are certainly not healthy and not to be regarded as anything but problematic.

The above definition is similar to that of Campbell et al.: "Level of satisfaction can be precisely defined as the perceived discrepancy

between aspiration and achievement, ranging from the perception of fulfillment to that of deprivation (Campbell et al., 1976:8)." While satisfactions are a function of aspirations and perceptions, they in turn are affected, although not wholly determined by, knowledge and experience and beliefs and values, Figure I-3.

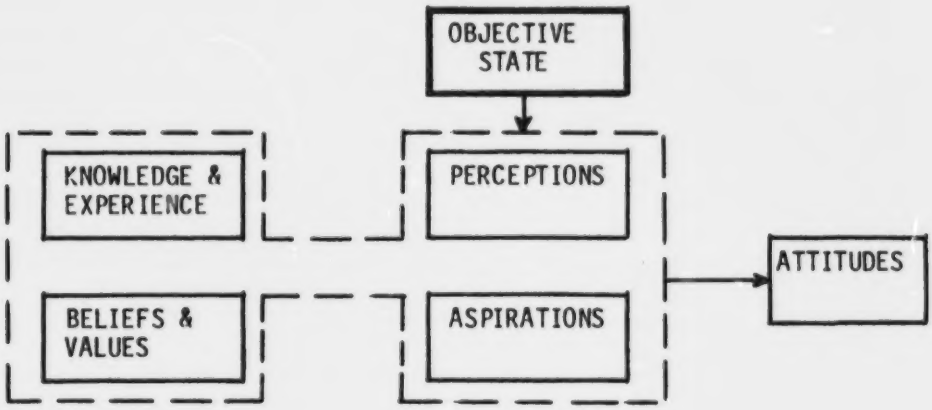


Figure I-3

THE ELEMENTS OF ATTITUDE

Aspirations might generally be considered to be feelings determined by the individual's estimate or perception of his own capability, the abilities of others, as well as a sense of entitlement or right as a member of the society. The concept has to do with goal-seeking attitude.

Aspirations are normative rather than positive: they may have little (perhaps nothing) to do with the attainability of the goal, as has been suggested in some of the literature. People can and do aspire to things they might never expect to fully achieve. Indeed, that is the nature of aspirations.

Aspirations approximate the ideal as perceived by the individual. They answer the question, "What should be?" or "What would I like?" Aspirations not only apply to feelings of self worth, but extend to include ideals about the actions of others and the nature of the "good life".

Perceptions can be defined as images of the objective state consisting of perceptions of the present and expectations of the future. As personal interpretations of the objective state, the idea of perception may be understood by considering such questions as "What is?" and "What is likely to be?"

Beliefs and values are normally regarded in the literature as relatively stable personality attributes, effective states and generalized concepts. Rokeach (1968) suggests that:

> . . . while attitude and value are both widely assumed to be determinants of social behaviour, value is a determinant of attitude as well as behaviour. . .. If we further assume that a person possesses considerably fewer values than attitudes, then value concept provides us with a more economical analytical tool for describing and explaining similarities and differences between persons, groups, nations, cultures . . . (Rokeach, 1968:157-58).

One's values are ultimately the guiding principles which determine one's happiness. Dissatisfaction arising out of the perceptions of a reality inconsistent with one's sense of what is right may well be more significant than inconsistencies with one's experience or knowledge.

One's values tend to form a relatively consistent view of the world. While values can be expressed as attitudes, the determination of attitudes per se will not necessarily be revealing of values.

Knowledge and experience refers to that inventory of perceptions accumulated through the course of one's life. Essentially it is what one has learned, formally or informally, and has retained for possible reference.

It is important that the level of knowledge or the suitability of the experience be measured in respect to some domains. For instance it may be possible to record improvements in satisfaction about a particular situation, yet find depressingly low levels of understanding about the matter. Knowledge and experience can usually be measured objectively.

The measurement of satisfaction, as treated in this report, involves not only the determination of some level of satisfaction with a particular concern or domain, but some estimate of the nature of an individual's perceptions, aspirations, beliefs and values, and in some cases, knowledge.

LEVELS OF ANALYSIS

The term level of analysis refers to the level of aggregation of the subject matter under investigation. This blueprint is concerned at a high level with the "general welfare" - with the quality of national life, satisfaction with country and other global measures of well-being covering all component concerns. It is equally concerned with the measurements of satisfaction with respect to each component concern and most sub-concerns.

Quality of life indicators generally involve the measurement of the relative degree of satisfaction or dissatisfaction an individual receives from a particular domain as well as the importance rating of that domain. Domain is a concept relating to area of life activity; areas which correspond roughly to ranges of concerns and sub-concerns within the framework. Listed in Table I-3 below are some of the major domains that might be evaluated within this framework.

Table I-3

EXAMPLES OF AREAS OF DOMAIN

Satisfaction with	Importance of
Personal Health and Fitness	good health and physical condition
Education	a good practical education, a good general education
Marriage	a happy marriage
Family	a good family life
Community	a good community in which to live
Home	a house or apartment that one likes
Job/Housework	a satisfying, productive day
Leisure	lots of time, lots of opportunities
Financial Situation	of having lots of money to do the things you want
Religious Faith	a strong religious faith
Political Life	good government - local, provincial and federal

BIBLIOGRAPHY: FRAMEWORK FOR A BLUEPRINT

1. Andrews, Frank M. and Stephen B. Withey. Social Indicators of Well-Being. New York: Plenum Press, 1976.

2. Campbell, Angus, Philip E. Converse and Willard L. Rodgers. The Quality of American Life. New York: Russell Sage Foundation, 1976.

3. Christian, David E. Social Indicators: The OECD Experience. Paris: Organisation for Economic Co-operation and Development, 1974.

4. Department of Regional Economic Expansion. Social Indicators: Toward the Measurement of the Quality of Life. Ottawa: 1972, unpublished.

5. Great Britain, Central Statistical Office. Social Trends. London: Government Statistical Service No. 7, 1976.

6. Kamrany, Nake M. and Alexander N. Christakin. "Social Indicators in Perspective", Socio-Economic Planning Sciences, Vol. 4, 1970, pp. 207-216.

7. Koelle, H.H. "An Experimental Study on the Determination of a Definition of the Quality of Life", in Regional Studies, Vol. 8, 1974, pp. 1-10.

8. Harland, Douglas G. "Social Indicators in a Futures Context". Paper presented at the Futures Society Meeting, Ottawa, Ontario, 1971.

9. Land, Kenneth C. and Seymour Spilerman (editors), Social Indicator Models. New York: Russell Sage Foundation, 1975.

10. Manzer, Robert. Canada: A Socio-Political Report. Toronto: McGraw-Hill Ryerson Ltd., 1974.

11. Organisation for Economic Co-operation and Development Measuring Social Well-Being. Paris: OECD, 1976.

12. Rokeach, Milton. Beliefs, Attitudes and Values: A Theory of Organization and Change. San Francisco: Jossey-Bass, Inc., 1968.

13. Rokeach, Milton. The Nature of Human Values. New York: Free Press, 1973.

14. Sheldon, Eleanor B. and Wilbert E. Moore (eds.). Indicators of Social Change. New York: Russell Sage Foundation, 1968.

15. Statistics Canada. Dictionary of the 1971 Census Terms. Ottawa: Ministry of Supply and Services, 1972.

16. Statistics Canada. Perspective Canada II. Ottawa: Ministry of Supply and Services, 1977.

17. Statistisk Sentralbyra. Sosialt Utsyn 1977. Oslo: Statistisk Sentralbyra, 1977.

18. Statistiska Centralbyran. Social Utveckling. Stockholm: Statistiska Centralbyran, 1974.

19. Wilcox, Leslie D., K.W. Wasson, F.A. Fear, G.E. Klonglan, G.M. Beal. Towards a Methodology for Social Indicators in Rural Development: Base Report. Ames, Iowa: Iowa State University, 1976.

PART II

CONCERNS, SUB-CONCERNS AND INDICATORS

Part I of this report serves as an introduction to, and explanation of, the design framework. Table I-2 presents a list of the concerns and sub-concerns that make up the framework. In this part, which is the principal section of the report, we introduce over one hundred social indicators for consideration.

These indicators are organized into twelve areas of social concern, each representing a goal of well-being. In each area the reason for the concern is outlined, the sub-concerns that are the component parts of a particular area are identified, and objective and subjective indicators proposed. These indicators, the framework within which they are organized, and the explanations and examples accompanying them comprise the blueprint. Literature relevant to each area of concern has been cited and other avenues for development have been explored.

A number of design considerations which apply to the collection methodology and timing of survey-based data will be discussed in Part II.

HEALTH

The collection of statistics on physical and mental health is a basic component of any social indicator program. Health is, of course, one of the most, if not the most fundamental social concern. All other areas of well-being impact on an individual's health, and vice versa.

Canada, like most countries, has relied on administrative data on hospitalizations as the major health indicator. Even recognizing the conceptual difficulties with measuring "positive" health, present measures only capture a small portion, albeit a most important portion, of total morbidity in the population. The recent introduction of the Canada Health Survey is an effort at correcting some of the major deficiencies inherent in an administrative-information-only base.

Although the Canada Health Survey is a significant advance in the field of health indicators, as presently constituted, it still leaves some gaps in our information about this important area of well-being. While adequate in regard to objective situational concerns, the Health Survey does not address matters such as satisfaction with health and health care or personal health resources.

Health statistics can be broken down into four categories: health status, health risks, the health care system, and personal care. This organization, while fairly traditional, is not incompatible with the "Health Field Concept" recently developed and adopted by the Federal Department of Health and Welfare. This "concept", envisioning four elements - human biology, environment, life style and health care organization, has yet to be set fully in place as a framework for the reporting of health statistics.

Most of the following indicators, with the exception of "satisfaction with one's own health", are uncommon in general health indicator literature.

SUB-CONCERN: HEALTH STATUS

Health status refers to the individual's level of health, a concept that is not easy to measure. Generally, it means the absence of disease or injury (absence of ill health), although in a broad sense the concern has to do as well with one's physical fitness.

Objective Indicator: The health status of the individual

As part of a general survey, some basic information on the current health of the individual may be required. This can be obtained by means of responses to questions on the presence or absence of specific illnesses or disabilities.

Subjective Indicator: Satisfaction with one's own health

Information on objective health status may indicate little about the individual's actual satisfaction with personal level of health. There is a need to determine how much importance is attached to good physical health as opposed to the simple absence of illness or disability as well as perceptions of one's physical condition relative to others or to one's personal aspirations.

Campbell et al. found that good health is a prized resource having one of the highest average ratings of all life domains (Campbell et al., 1976:377). Despite data that indicate that the majority of individuals are quite satisfied with their health, the growing interest in physical fitness may suggest a gradual shift in the direction of greater dissatisfaction.

SUB-CONCERN: HEALTH RISKS

Health risks refer to genetic, environmental and lifestyle factors affecting health. In terms of lifestyle factors alone there exist a host of "self-imposed risks" which significantly affect health. Indeed, exposure to unnecessary risks is, with increasing medical knowledge, becoming an imposing issue in the health field generally. As such, there is a growing concern over the nature of perceptions and extent of knowledge of such risks within the population.

Objective Indicator: Knowledge of health risks

Knowledge about various health risks may be an important determinant of individual behaviour as it relates to health. Of interest is the individual's awareness of the prevalence of major diseases and of the nature, cause and significance of certain self-imposed and environmental health risks.

Subjective Indicator: Perceptions of health risks

While objective indicators of knowledge can roughly measure what or how much a person knows or does not know about health risks, a measure of perceptions is necessary to determine whether an individual is misinformed or ill-informed about what constitutes dangers to personal health. Perceptions might also reveal to what extent the information is believed, or believed relevant, in each case. Also of interest may be preconceptions of a number of medical disorders (e.g., epilepsy, diabetes, schizophrenia, mental retardation, alcoholism) whose sufferers tend to be stereotyped.

Subjective perceptions and objective knowledge are closely aligned measures. Indeed, both may cover essentially the same subject matter and only differ in the way they seek to capture the information.

SUB-CONCERN: THE HEALTH CARE SYSTEM

The health care system can be broadly defined as the personnel, facilities, organizations and operations involved in the delivery of health care to the individual. The system is extremely complex, and most individuals are somewhat estranged from it because of their lack of knowledge. A certain level of knowledge about the health care system - how it operates, what services are available and where, costs in time and dollars of using any part of the system, medical risks, service options, etc. - is essential if individuals are to use the system wisely and confidently and thus, receive the greatest benefit from it.

Objective Indicator: Time spent in the health care system

Time spent seeking and receiving health care can be identified and will provide considerable insight into the use of the system.

Subjective Indicator: Knowledge of the health care system

When dealing with an institutional system, especially a large, complex bureaucracy, a certain level of knowledge and understanding is necessary in order to use that system wisely. An individual's knowledge of the health care services available and how the health care system functions in the community can provide some indicator of that person's ability to use the system effectively or to distinguish between good or poor care.

Subjective Indicator: Perceptions of the health care system

This indicator would focus on the various components of the health care system, their roles and capacities, and the options available to the individual.

Use is an important measure not only for itself but because experience with the system through use will affect knowledge and perceptions of it, and very likely the level of satisfaction.

Subjective Indicator: Satisfaction with the health care system

Measures both of overall satisfaction and satisfaction with respect to certain aspects of the health care system (e.g., nursing care, diagnostic services) should be sought. Statistics revealing degrees of

alienation or trust of the system also fall under the heading of satisfaction.

SUB-CONCERN: PERSONAL CARE

Personal care refers to activities related to the nurture and maintenance of the individual, such as sleeping, eating, exercising, resting, etc. While there may be overlap between personal care activities and other activities such as leisure (e.g., jogging) the concern here would be the extent to which the activity could be viewed as instrumental in the maintenance and health of the individual.

Objective Indicator: Time devoted to personal care activities

The time devoted to all personal care activities is easily obtained via time budget surveys and activity lists.

Objective Indicator: Expenditure on personal care items and services

This is currently collected by Statistics Canada.

BIBLIOGRAPHY: HEALTH

1. Campbell, Angus, Philip E. Converse and Willard L. Rodgers. The Quality of American Life. New York: Russell Sage Foundation, 1976.

2. Health Field Indicators. Ottawa: Health and Welfare Canada, 1976.

3. Ministry of National Health and Welfare. New Perspectives on the Health of Canadians. Ottawa: Information Canada, 1975.

4. Terleckyj, Nestor E. Improvements in the Quality of Life. Washington: National Planning Association, 1975: pp. 73-90.

THE FAMILY

Interest in the family as a social organization - its form and changes in internal characteristics - has always been high among social scientists. Governments are also concerned with the family, since many of the processes involving the family are of fundamental importance to social planning. Thus, we have government collected statistics on marriage rates, fertility rates, average family size, characteristics of the head of the household, dissolution of marriage, etc., as well as a considerable amount of information about the economic position of the family.

There are, however, two fundamental drawbacks to much of the currently collected data. First, the meaning for family members of the processes they experience is not known. Present data only allow formulation of aggregate patterns or trends, while little information related to how people feel about the family and how they view their situation is collected. Second, there are areas where there is virtually no information about the family; e.g., the incidence and history of serial marriages, child care arrangements, inheritance patterns, household division of labour, authority patterns within the family, etc.

Two issues have to be taken into account in choosing areas where additional or better information is needed.

First, the family is regarded as a very private domain in which the state has limited rights to interfere. Thus, even where the attitude toward government intervention in many areas is favorable, there is a reluctance to try to direct the family except under extreme conditions. There are areas of family life which appear to be changing significantly and about which those forming public policy do wish to have more information. These may not be accessible, however, since the collection of relevant data may be seen as unwarranted government interference. Cases in point might relate to the so-called sexual revolution, early childhood socialization, and authority relationships within the family.

Second, while considerable attention has been given to changes in the family from pre-industrial to industrial society, there is no adequate body of theory to suggest what is going to happen in the near future. Thus, the choice of indicators is not based on a sound theoretical ground and may, as a result, prove in the long run to be more ambiguous than anticipated.

A number of interrelated research themes pertaining to the family which are more or less common in western industrialized societies can be identified. These can be taken as representative of the component concerns on which to focus, although the list is not exhaustive. Included here are:

URBAN DOCUMENTATION CENTRE
RESEARCH UNIT FOR URBAN STUDIES
McMASTER UNIVERSITY
HAMILTON, ONTARIO

- increasing democratization of the family
- sexual revolution
- increasing divorce rates
- number of single parent households
- rise in labour force participation rate among married women
- changing sex roles
- attenuation of kinship ties, particularly as this relates to the care of the elderly

Understanding of the interrelationship of these topics is imperfect as is certainty as to the likelihood that trends will continue. It is nevertheless a point of departure.

SUB-CONCERN: MARITAL STATUS

Since marriage is still viewed as the usual process by which a new family is created, information about marriages is basic to understanding the family, its career and dissolution. A marital career history would provide characteristics of the marriage partners, length of the marriage, reasons for marriage dissolution if this has occurred, and length of time before any remarriage. For the purpose of analyzing marriage break up, for example, the extent of intermarriage between members of different religious or ethnic groups can give an indication of how significant these factors are in differentiating people and as possible causes of conflict.

Objective Indicator: Marital history

For all persons now married or ever married, and for each of their marriages, elements in a marital history would include:

Characteristics of the Marriage:

- date of marriage
- place of marriage
- date of dissolution
- reasons for dissolution:
  - death
  - separation
  - divorce - stated reasons for divorce
- parental approval of the marriage (indicator of parental authority and control)

Characteristics of the Partners:

- place of birth of marriage partners
- age of partners at marriage

- educational attainment of partners at marriage
- religious affiliation of partners at marriage
- occupation of marriage partners at marriage
- first language of partners
- language spoken between partners
- selected characteristics of parents' marriage (used to investigate intergenerational similarities)

Household-related Characteristics:

- household immediately prior to marriage (e.g., parents' home, own household)
- household immediately after marriage
- location of household after marriage

Subjective Indicator: Satisfaction with marital status

Researchers report in the Quality of American Life that good health and a happy marriage are the two values Americans regard as most important. Further, a happy marriage is the major factor in explaining variances in persons' sense of general well-being. However, attention should also be directed to assessing the satisfaction of nonmarried people with their marital status, particularly in view of their increasing numbers.

Subjective Indicator: Assessment of interpersonal relationships between the spouses

Marital satisfaction seems to be most significantly related to the spouses' assessments of interpersonal relationships. Thus, areas to investigate might include decisions over spending money, understanding of each others feelings, and how often the marriage partners do certain activities together; i.e., companionship.

SUB-CONCERN: FERTILITY

Basic information regarding the fertility of the population is collected from vital statistics and the census, and these data are useful in calculating rates and flows for population estimation and projection. However, this information tends to be isolated from other relevant information about the life cycle and could only be integrated by expensive record linkage. Survey information about fertility would, therefore, represent valuable additional information.

Objective Indicator: Birth timing/reproductive history

This indicator will generate statistics on the timing of births, the

number and dates of live births, and the age of the mother at first birth. The "Fertility History" series from the U.S. Bureau of the Census provides an indication of the kinds of information obtainable from fertility history surveys (U.S. Bureau of the Census, 1976).

If coupled with data on marital history, reproductive history permits construction of indicators of out-of-wedlock births. In addition to comparing fertility history to the mother's age and birth interval, it may also be possible to examine the impact of the other events on birth timing; e.g., residential movement, completion of higher education, etc.

Objective Indicator: Birth control methods in use

This indicator aims to highlight the current contraceptive practices of the survey population. While it is believed that contraceptive behaviour is a sensitive issue, these data are nevertheless obtainable at acceptable quantity levels (Westoff and Bumpass, 1973).

It is possible that this indicator could be combined with the Birth Control Knowledge and Attitude Indicators into a Knowledge-Attitude-Practice Study (Nam and Gustavus, 1976).

Subjective Indicator: Ideal family size

The number of children people regard as most suitable for themselves or others to have provides some insight into the societal norms of family size.

Subjective Indicator: Desired (preferred) family size

The number of her own children a woman would like to have, irrespective of other considerations, would be identified.

Subjective Indicator: Anticipated family size

This indicator would identify the number of her own children a woman anticipates having, given her possible inability to obtain desired family size. (For parallel U.S. data, see U.S. Bureau of Census, 1973.)

Subjective Indicator: Birth control/contraceptive knowledge

This indicator attempts to identify the extent and accuracy of birth control knowledge among the survey population.

Subjective Indicator: Birth control/contraceptive attitudes

This indicator attempts to identify the dimensions and directionality of attitudes toward birth control among the survey population.

SUB-CONCERN: HOUSEHOLD COMPOSITION

One of the aspects of people's lives which changes fairly frequently and affects virtually everyone is the composition of the household in which they live. The concern here is with the type of household in which people live (e.g., with relations or unrelated adults); the causes for the establishment of the household; and the changes which have taken place with regard to the members involved.

Objective Indicator: History of household composition

Only 42 percent of the households examined in both 1968 and 1972 in the Five Thousand Family Study had the same composition both years. And, as that study shows, the "comings and goings of its members can have a more dramatic effect on family finances than changes in earnings or employment." (Morgan et al., 1974:50). Thus, an understanding of changing well-being requires knowledge of changing composition.

Subjective Indicator: Satisfaction with the composition of the household

Degree of satisfaction with the roles represented by members of the household would be sought.

SUB-CONCERN: CARE OF CHILDREN

The common assumption that children in their early years will be cared for primarily by their mothers is changing in the face of an increasing labour force participation among married women. The concern about care of children not only arises because governments may have to provide services but because the socialization of children in their early years is closely related to the sorts of individuals they will be in adulthood. The values that children learn, their behaviour and attitudes, are consequently of importance in attempting to predict society's future directions.

The costs to society of particular patterns of socialization and child care may also be of interest. This refers not to the direct costs of kindergartens, schools, etc., but rather to the costs incurred because of inadequate child care or socialization; the health costs resulting from insufficient child care, the costs to society of illegal

activities and of adults who function at a less than the optimal level. This latter aspect would certainly be very difficult to study, but some attempt to develop a social accounting system for different patterns of socialization is worthy of consideration.

Apart from the concern of who cares for the children, the actual content and procedures followed by parents in socializing children is also of interest. The democratization and the changing values of the family are important themes which will continue to receive attention. To the extent that it is possible to identify clearly such trends, they would be of interest to a wide variety of social organizations.

Objective Indicator: Time spent caring for children

Objective Indicator: Child care arrangements outside school

Objective Indicator: The success or failure of child care and socialization

For example, the degree to which children have extended periods of ill-health, contacts with the judicial system and other social support services, or have not reached specified levels of educational attainment.

Objective Indicator: Content of socialization

For example, major values taught to children.

Objective Indicator: Means of socialization

For example, methods of child discipline, responsibilities given children at different ages, degree of freedom in upbringing.

Subjective Indicator: Satisfaction with child care arrangements

For example, degree of satisfaction with content/quality of child care arrangements and the flexibility it provides parents to undertake other activities.

Subjective Indicator: Satisfaction of parents with relationship with their children

For example, to what extent do parents feel successful in their role as a parent.

SUB-CONCERN: HOUSEHOLD PRODUCTION

Hawrylyshyn (1974) has defined household work (production) as "the value of economic services produced by household members; i.e., conceptually market-replaceable services." He suggests that to date empirical estimates have shown such household work to equal about one-third of GNP.

Given the magnitude of household production, considerable effort has been made recently to evaluate and measure it; see, for example Harvey and Macdonald (1976) and Hawrylyshyn (1974). The importance of understanding the nature and magnitude of household production is underlined by the shifts that are taking place between market and non-market activity, particularly with respect to the growing female labour force participation rate.

Objective Indicator: Time spent in household production

Participation in household production such as cooking, cleaning, clothes care, etc. is best monitored by the time devoted to it by household members.

Subjective Indicator: Consumption benefits (satisfaction)

This indicator would focus on the consumption benefits (satisfaction) an individual receives from activities generally thought of as productive - e.g. cooking, housecleaning, taking care of children, etc. - as well as paid work. Additionally, it would capture satisfaction derived from activities seen primarily as consumptive; e.g. entertaining, watching TV, reading, etc.

A major concern in the evaluation of time allocation is whether or not an activity is a productive or consumptive activity; i.e., is the activity being undertaken purely to meet required personal family needs, or is it being undertaken partly or wholly as a discretionary activity? For example, meal preparation time expended by someone who hates to cook can reasonably be considered purely productive time. On the other hand, similar time spent by an individual who enjoys cooking bestows on that person certain consumption benefits. Information which allows one to evaluate time allocation in this way is crucial to the development of household production estimates and its contribution to the welfare of the individual, the family and the total output of the economy.

Hawrylyshyn (1975), in his study of the evaluation of household work for Statistics Canada, sounded a cautionary note, however, with respect to measuring the productive and consumptive elements: "the direct utility components (consumptive element) are not and should not be subject to dollar valuation, and that any dollar valuation of

nonmarket activities should be limited to the indirect utility (productive) components."

This indicator would be used mainly as an adjunct to a comprehensive time allocation survey, since its major purpose would be for the evaluation of time allocation. An example of the approach suggested here is contained in the ISR Survey Research Center, Time Use Study, May-June Reinterview: Spouse Form, (1975).

Objective Indicator: Time spent on home maintenance, repairs and projects

This indicator would provide detailed information on time devoted to a variety of maintenance, construction and repair activities such as painting, plumbing, appliance repair, car repairs, etc. It would help identify the extent of contracted versus home-produced activity. It would provide time information similar to expenditure information currently collected in this area.

This information will be an important component in any effort to measure household (non-market) production, since comparable data in Urban Family Expenditure for 1964 and 1974 reveal a trend towards a growth in "do it yourself activity". This indicator could be used to evaluate both time budget and consumer expenditure data and would only need to be collected infrequently.

SUB-CONCERN: DIVISION OF LABOUR IN THE HOUSEHOLD

One issue which has received considerable attention recently is the extent to which traditional female and male roles are changing. The increasing participation of women in the labour force and the resurgence of the womens' movement in the late 1960s have led people to assume that changes in the household division of labour are occurring. However, to date the evidence is ambiguous and the extent of changes in households does not seem to be as great as expected. Nevertheless, the trend towards less rigorously defined sex roles appears as a major theme in the current literature as a significant process worthy of attention.

The fact that more married women are now in the labour force is one indication that the male role as the sole provider for the family has altered. Of concern here is the degree to which changes in one aspect of husband and wife roles causes changes elsewhere. It is likely that women, while they are increasing their total hours of work outside the home, continue to be primarily responsible for household duties and child care. The lack of discretionary time available to women may, therefore, be of significance in an overall assessment of their quality of life.

Women's perception of the problem will be seen in relation to the benefits they gain from being in the labour force. For fathers, dissatisfaction may arise when the expectations they have about helping to socialize their children cannot be realized because of constraints imposed upon them by their participation in the labour force; e.g., shift work, time away from home, etc.

Objective Indicator: Allocation of tasks between husband, wife or others; i.e., who actually performs a task

Nye and Baker (1976) suggest there are eight different roles undertaken by husbands and wives and their list could be used as a guide to the areas which need to be investigated. The roles listed are: provider, housekeeper, child care, child socialization, sexual, recreational, therapeutic and kinship.

Objective Indicator: Resolution of disputes in specific areas of the family; i.e., authority and power within the family

Methods by which important decisions are made and disagreements are resolved within the family, and by which areas of authority may be divided between various members.

Subjective Indicator: Preferred role assignment; i.e., who should do certain tasks and the extent to which roles should be shared

Subjective Indicator: Satisfaction with the division of labour in the household

Subjective Indicator: Role strain

This addresses the degree to which individuals worry about their performances and the degree to which they feel they are performing adequately.

SUB-CONCERN: KINSHIP TIES

There has been considerable debate in recent times about the extent to which families in industrial societies maintain contact with their wider network of kin or are isolated. The earlier stress on the isolation of families has recently been countered with evidence that families do maintain contact with other relations in their kin group. The degree to which people are embedded in their kinship networks will be of interest

in determining the extent to which the family still is used as a resource for personal care rather than individual reliance on government agencies.

The rise in single person households among the young and elderly does raise the question of whether or not families are withdrawing from responsibility for these groups, or whether the maintenance of a separate household is a preference on the part of both parties. In this latter case, contact with other family members may still be important.

Objective Indicator: Maintenance of kinship ties

Areas to be examined include frequency of contact with family members outside the household; type of contact - face to face, letters, etc.; type of activity done with or for kin - recreational, aid in shopping, etc.; and time spent with kin.

Subjective Indicator: Satisfaction with relationships within the kin network

SUB-CONCERN: INHERITANCE OF ASSETS FROM KIN

Inheritance patterns within Canada have most probably changed significantly during this century. As the country has become increasingly industrialized the type and quantity of assets which people accumulate during their lifetime will have changed. Equally important are the changing social attitudes towards the family and its members. Previously daughters and younger sons may have had little claim on family property; however, one can postulate that the democratization of the family will have led to all children being seen to have an equal right to share in any family assets. At the present time, there is little information available on the inheritance of assets; consequently it is difficult to identify any significant trends in this area.

Objective Indicator: Type and value of assets inherited from kin

Objective Indicator: Proposed disposition of own assets

BIBLIOGRAPHY: THE FAMILY

1. Adams, Bert N. Kinship in an Urban Setting. Chicago: Markham Publishing Co., 1968.

2. Bell, N. and E.F. Vogel (eds.). A Modern Introduction to the Family. New York: Free Press, 1968.

3. Boyd, Monica. "Family Size Ideals of Canadians: A Methodological Note", Canadian Review of Sociology and Anthropology. Vol. 11, No. 4, November 1974, pp. 360-370.

4. Campbell, Angus, Philip E. Converse and Willard L. Rodgers. The Quality of American Life. New York: Russell Sage Foundation, 1976.

5. Coburn, David and Virginia L. Edwards. "Job Control and ChildRearing Values", Canadian Review of Sociology and Anthropology, Vol. 13, No. 3, August 1976, pp. 337-345.

6. Cromwell, Ronald E. and David H. Olson. Power in Families. New York: John Wiley & Sons, 1975.

7. Harvey, Andrew S. and W. Stephen Macdonald. "Time Diaries and Time Data for Extension of Economic Accounts", Social Indicator Research, Vol. 3, 1976, pp. 21-35.

8. Hawrylyshyn, Oli. "Evaluating Household Work: Theoretical and Methodological Approaches". Working Paper No. 2, Non-Market Activity Project. Ottawa: Statistics Canada, 1975.

9. Hawrylyshyn, Oli. "The Value of Household Services: A Survey of Empirical Estimates". Working Paper No. 1, Non-Market Activity Project. Ottawa: Statistics Canada, 1974.

10. Henripin J. and J. Légaré. "Recent Trends in Canadian Fertility", Canadian Review of Sociology and Anthropology. Special publication on the occasion of the Eighth World Congress of Sociology, 1974, pp. 61-73.

11. Hoffman, Lois Wladis and F. Ivan Nye (eds.). Working Mothers. San Francisco: Jossey-Bass, 1974.

12. Holstrom, Lynda L. The Two-Career Family. Cambridge, Mass.: Schenkman, 1973.

13. Institute of Social Research. 1975 Time Use Study, Spouse Form. Ann Arbor: 1975.

14. Ishwaran, K. The Canadian Family. Toronto: Holt, Rinehart & Winston, 1976.

15. Légaré, Jacques. "Demographic Highlights on Fertility Decline in Canadian Marriage Cohorts", Canadian Review of Sociology and Anthropology, Vol. 11, No. 4, November 1974, pp. 287-307.

16. Morgan, J. et al. Five Thousand American Families - Patterns of Economic Progress. Vol. 1. Ann Arbor, Michigan: Survey Research Centre, ISR, University of Michigan, 1974.

17. Nam, Charles B. and Susan O. Gustavus. "The Dynamics of Demographic Change", Population. Boston: Houghton Mifflen, 1976.

18. Nye, F.I. and H.M. Baker. Role Structure and Analysis of the Family. California: Sage Publications, 1976.

19. Oakley, Ann. The Sociology of Housework. New York: Pantheon Books, 1975.

20. Oppenheimer, Valerie. "The Sociology of Women's Economic Role in the Family", American Sociological Review, Vol. 42, 1977, pp. 387-406.

21. Pike, Robert. "Legal Access and the Incidence of Divorce in Canada", Canadian Review of Sociology and Anthropology, Vol. 12, No. 2, May 1975, pp. 115-133.

22. Pool, D.I. and M.D. Bracher. "Aspects of Family Formation in Canada", Canadian Review of Sociology and Anthropology, Vol. 11, No. 4, November 1974, pp. 308-323.

23. Sheldon, E.B. and W.E. Moore (eds.). Indicators of Social Change. New York: Russell Sage Foundation, 1968.

24. Statistics Canada. Urban Family Expenditure, 1964, Catalogue No. 62-527.

25. Statistics Canada. Urban Family Expenditure, 1974, Catalogue No. 62-544.

26. U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 254, "Birth Expectations of American Wives: June 1973", 1973.

27. U.S. Bureau of the Census. Ibid., No. 288, "Fertility History and Prospects of American Women: June 1975", 1976.

28. Walker, Kathryn E. and Margaret E. Woods. Time Use: A Measure of Household Production of Family Goods and Services. Washington: American Home Economics Association, 1976.

29. Westoff, C.F. and Larry Bumpass. "The Revolution in Birth Control Practice of U.S. Roman Catholics", Science, Vol. 179, 1973, pp. 41-44.

EDUCATION, TRAINING AND SKILL DEVELOPMENT

In all known economies people with more education and training earn, on average, higher incomes than people with less education and training. The individual's stock of human capital also appears to be one of the more important factors affecting chances of obtaining desired types of employment. The time and money costs incurred by individuals in acquiring education constitute an investment in their own future earning capacities. Economists have demonstrated to governments that education and training are also paying propositions for national economies.

Some groups in society hold that the main purpose of education and other types of formal learning is to increase the capabilities of people to contribute to the economic productivity of the society as a whole. Others hold that the major function of schools and training institutions is to develop creative individuals. Still others believe that both functions can be addressed by our educational and training establishments and that a concern for individual development and self-actualization can be equated with an improvement of the community as a whole.

There are two primary methods of obtaining basic and further knowledge, skills and values. One is through formal, structured education and training in a planned institutional setting such as that existing in a school. The second is through the use of more informal techniques such as independent study or on the job training.

The need to educate the young is widely recognized and accepted in Canada, as in most countries. This need is met through formal structured education and training, at least to the level of primary occupational preparation. It has become quite clear that for a sizeable group within the population the end of this original period of compulsory education marks the end of organized educational activity. In Canada, as in most countries, the age of 16 years marks the end of compulsory education.

It has been pointed out by UNESCO, the OECD and many other organizations that, in a dynamic industrial society such as generally exists today, everyone needs exposure to lifelong learning. Indeed, the OECD views the requirement for lifelong learning as such a paramount concern that it considers that general access to "recurrent" education should be guaranteed and that the right to educational leave should be granted for purposes of general education as well as further occupation-related training.

The adult or continuing education component of lifelong learning is, of course, post-compulsory and therefore voluntary. It is highly unlikely that people will be inclined to continue formal studies unless there is some sort of payoff, either through intrinsic or extrinsic

rewards. Study directed toward acquiring a particular skill of economic or social value, such as medical, legal, engineering or other technical training, usually pays off quite handsomely. If a politician, civil servant, labour leader or other person interested in community improvement enrolls in courses or programs that equip their students to better understand and solve society's problems, the payoff again can be very high. A course can also have a high payoff for an individual if he finds it intrinsically interesting and rewarding.

The total range of opportunities for lifelong learning is too broad to be addressed at this time, so the decision has been made to concentrate on organized or formal methods and exclude independent study along with on the job training methods. Within the area of formal education, two main categories have been identified, regular and continuing education. Regular education is defined as the sequence of education from childhood and adolescence through higher education. The OECD favours the term "adult education" rather than continuing education but it is felt that "continuing" describes this type of learning more completely, given the age at which some students initially leave the "regular" system for the labour market. Continuing education is that which takes place after regular education has been interrupted by participation in the labour market or some other non-educational activity. It refers to the process by which adults undertake learning activities with the intent of effecting changes in knowledge, skills and attitudes to meet personal, occupational or community needs.

The OECD has recently become involved in studies related to recurrent education, believing that the working careers of present and future labour market participants would be interrupted repeatedly and systematically by periods of education and training. It is felt that it may not be necessary to go quite so far to describe reentry of mature students to the educational or training system and that "continuing" education is sufficiently descriptive.

SUB-CONCERN: EDUCATION, TRAINING AND SKILL STATUS OF THE POPULATION

The OECD has dismissed "quantity of education" statistics as being too far removed from their objectives to serve even as proxy indicators of learning. It is recognized that the social indicators movement is relatively new, and does not have all the answers to this type of problem. At the same time, governmental efforts to operationalize a social indicator system must start with fairly straightforward, understandable benchmarks which can then be elaborated and extended as experience and research suggest. It is suggested that attainment measures can be readily monitored by means of household surveys in order to establish the present formal education, training and skill status of the population.

Objective Indicator: Education, training and skill attainment

The traditional measures of educational attainment do not really measure how much has been learned but rather provide knowledge concerning the amounts of schooling to which an individual or group has been exposed, the number and type of institutions attended, or the number and type of qualifications or certifications held. It has been pointed out that, at time of registration, at least for those students who are beyond the age of compulsory attendance, the intention of most is to work towards obtaining a qualification or certificate of some sort. This applies to both educational and training programs.

It is felt that up to the completion of secondary school the number of years of schooling completed should be used as a measure of attainment. Certification should be used as the basis of measurement for post-secondary education and training. It could also be used to measure training and skill attainment for those who enter apprenticeships and other types of programs before formally completing a high school or secondary course of studies. If these people at some stage in their careers decide to take "equivalency" tests, the certificate obtained would allow relative positioning on an attainment scale.

Objective Indicator: Education, training and skill history

As well as measuring the number of years of completed schooling or training and the number of qualifications held, it might be of interest to know when these qualifications were obtained and at what age the respondents completed the requirements for them.

SUB-CONCERN: OPPORTUNITIES FOR EDUCATION, TRAINING AND SKILL DEVELOPMENT

The questions of who should attend university or other programs; in what numbers; for how long; paid for by whom; at what standard; for general education or occupational preparation; and to what extent at various levels is what would be addressed under the heading of opportunities. In other words, what appear to be the real or perceived barriers to accessibility?

The OECD (1976:67) lists three types of accessibility relevant to learning opportunities:

1. physical accessibility;
2. economic accessibility; and
3. perceived accessibility.

Learning is considered to be synonymous with education training and skill development. The three mentioned types of accessibility appear to be amenable to measurement by means of household survey techniques. The first two could be measured in other ways, but perceived accessibility would require survey methods.

Objective Indicator: Physical accessibility of programs

The percentage of the population living within a reasonable distance or travel time of various types of educational or training facilities is a possible indicator.

The temporal as well as spatial availability of programs should also be considered; that is, programs should be available and institutions should be open during the free time of individuals. If, for instance, continuing education facilities are only available to workers in the evening hours, shift workers might have limited or no access to formal programs.

Objective Indicator: Economic accessibility of programs

The number of students enrolled in regular educational programs by annual family income, education and occupation of parents would be indicative of economic accessibility.

If people are to have real access to lifelong learning, work will have to be given up for various periods of time, as will leisure, in order that educational opportunities may be pursued. Financial mechanisms and more flexible institutional arrangements will have to be developed so that the burden of costs is not borne solely by the individual. The number of students by age group, annual family income, educational level and occupational group would be indicative of economic accessibility to continuing education courses and programs.

Subjective Indicator: Perceived accessibility of programs

Knowledge and awareness of particular programs is essential if an individual is to make use of the opportunities available. This refers not only to the physical availability of the programs but also to an awareness of bursaries, grants, loans or other types of funding that would lower financial barriers to participation in programs. Preferences or interest in programs and activities should be measured also.

Subjective Indicator: Satisfaction with the accessibility of programs

SUB-CONCERN: USE OF EDUCATION, TRAINING AND SKILL DEVELOPMENT PROGRAMS

The propensity of individuals to use both full-time and part-time regular and continuing organized learning opportunities can best be measured by comparing enrollments in relation to the population potentially involved, with breakdowns by age, sex, occupation and place of residence (urban, rural).

Objective Indicator: Participation in programs

The total number of students of X age enrolled in the n^{th} level divided by the total number of persons of X age by sex and place of residence for both regular and continuing education would be an example.

Objective Indicator: Expenditures on programs

Objective Indicator: Time spent on programs

Subjective Indicator: Satisfaction with programs

This indicator would be used to assess attitudes, perceptions and beliefs about the quantity and quality of programs available. Preferrences for and interest in programs not currently available should be of use to educational planners.

BIBLIOGRAPHY: EDUCATION, TRAINING AND SKILL DEVELOPMENT

1. Blaug, Mark. An Introduction to the Economics of Education. Middlesex: Penguin Books, 1970.

2. Centre for Educational Research and Innovation. National Seminars on Recurrent Education, Austria. Paris: OECD, 1977.

3. Cook, Gail C.A. (ed.). Opportunity for Choice: A Goal for Women in Canada. Ottawa: Information Canada, 1976.

4. deChalendar, J. Lifelong Allocation of Time. Paris: OECD, 1976.

5. Ingram, E.J., L.W. West and J.C. Meek. A Review of Educational Opportunity in Alberta, 1970. Human Resources Research Council, 1971.

6. National Commission for Manpower Policy, From School to Work, Improving the Transition. Washington: USGPO, 1976.

7. National Opinion Research Center, National Data Program for the Social Sciences Codebook for the Spring 1972 General Social Survey. Chicago: NORC, University of Chicago, July 1972.

8. Ontario Economic Council. Emerging Problems in Post-Secondary Education. Toronto: OEC, 1977.

9. Ontario, Ministry of Education. Assessment of Student Achievement. Toronto: Ministry of Education, 1976.

10. Organisation for Economic Co-operation and Development. Measuring Social Well-Being. Paris: OECD, 1976.

11. Organisation for Economic Co-operation and Development. Learning Opportunities for Adults, Vol. IV, Participation in Adult Education. Paris: OECD, 1977.

12. Organisation for Economic Co-operation and Development. Indicators of Performance of Educational Systems. Paris: OECD, 1973.

13. Ryter, Eva. "Difficulties in Obtaining Education Attainment". Ottawa: Education Division, Statistics Canada, mimeo.

14. UNESCO. Statistics of Educational Attainment and Illiteracy 1945-1974. Paris: UNESCO, 1977.

15. U.S. Department of Commerce. Population Characteristics, Educational Attainment in the United States: March 1973 and 1974. Washington: USGPO, 1974.

16. U.S. Department of Health, Education and Welfare. Toward A Federal Policy on Education and Work. Washington: USGPO, 1977.

17. Williams, Gareth. Towards Lifelong Education: A New Role for Higher Education Institutions. Paris: UNESCO, 1977.

EMPLOYMENT

Probably no other area of human economic endeavour has received the attention of policy makers, and thus of statisticians and researchers, to the extent that market work has. Since market work lies at the heart of the economic system, serving as one of the two major interfaces of people and the economy (the other being consumption), it has been all the more intensively analyzed. From the economic viewpoint, attention has been directed to such concerns as labour force participation, employment, occupational and industrial structure, and earnings and hours of work. Sociologists have focused on concerns which recognize the centrality of an individual's occupation to his life. Psychologists have been concerned with issues such as motivation of individuals and the correct colour of workspace walls to elicit desired behaviour from workgroups, and industrial relations specialists are continually experimenting with new techniques to smooth the course of collective bargaining.

In spite of the extensive measurement and study focusing on market work, there is a glaring shortage of information that is of value in monitoring its social aspect. The attention paid this area to date by central statistical bodies has clearly had an economic orientation. This fact is attested to by the observation in Perspective Canada II, in the section on "Work", that "three primary sources of statistical material are used in this chapter: 1. The Monthly Labour Force Survey. 2. Job Vacancy Survey. 3. Monthly Survey of Employment and Payrolls." This was not at all due to the fact that the compilers of that volume were unaware of the non-economic aspects of work life. They in fact observed that "while these [non-economic] questions are of importance to Canadian society, only limited data from special surveys and studies are available on which to base an assessment of them . . ."(Statistics Canada, 1977:111).

It is obvious that the absence of social-psychological data on market work activity is a glaring omission from our fund of indicator data. It is a gap that can be adequately filled in a general household survey.

As the OECD working group on social indicators has observed, "the availability of gainful employment for those who desire it, the quality of working life, and individual satisfaction with the experiences of working life are central concerns of all OECD member countries . . ." (OECD, 1976). At a minimum, these items should be addressed in any social monitoring. Additionally, the opportunities for and presence of advancement both between generations and over one's lifetime are a significant barometer of the level of opportunity provided by our economic environment.

SUB-CONCERN: CURRENT EMPLOYMENT OPPORTUNITIES

Employment opportunities cannot be considered independently from the individuals seeking gainful employment. If the jobs available or the locations at which they are available are beyond the capabilities or awareness of those seeking gainful employment, they contribute little to well-being. While much of our manpower effort (i.e., retraining, job search and mobility assistance) is directed at bringing any such mismatches into line, we know little concerning how opportunities are experienced or perceived by those seeking employment.

Objective Indicator: Employment opportunities

This is not collectable at the household level and is addressed in other available data.

Objective Indicator: Persons seeking gainful employment

While this can be collected at the household level, it is best done by means of the labour force survey.

Subjective Indicator: Perceptions of employment opportunities

This indicator would show how individuals perceive the current state of the labour market. It should capture both their view of the market for their particular skills and their view of the market in general.

A key issue in the analysis of labour force participation is the effect which labour market conditions have on individuals' labour market behaviour. As conditions change, do these changes encourage or discourage people from entering the labour market? This question can best be answered by monitoring peoples' perceptions of opportunities.

Subjective Indicator: Satisfaction with employment opportunities

This indicator would monitor the satisfaction of individuals with the quantity and quality of opportunities. Along with measures of the quality of working life it would provide an indication of overall satisfaction with the domain of market work.

SUB-CONCERN: CURRENT MARKET STATUS OF WORKERS

The current involvement of individuals in the labour market and in employment is a major continuing concern of government, a concern which lies at the heart of the labour force survey. There are, however, some

questions relating to the quantity of market work not addressed by the existing data or for which existing data may be misleading. Most data related to work hours are captured at the level of the employer and may or may not adequately reflect the time involvement of workers. Such data may fail to capture some or all of work at home, overtime, travel time and non-paid time at the workplace.

Objective Indicator: Participation in paid work

This indicator is currently a major output of the labour force survey, which captures employment status in a definitive way. However, at a different level participation in paid work can be measured in terms of time devoted to it, with a positive quantity of time indicating both participation and the degree of participation.

Thus, in addition to the question of who is employed is the question of who is working. Weighted time budget data for Halifax (Harvey et al., 1972) showed that on an average day:

86.5 percent of men in the sampled population were employed.

76.1 percent of employed men in the sampled population worked an average 7.1 hours at their main job.

67.5 percent of all men in the sampled population worked at their main job.

Comparable figures for women were 43.9 percent, 67.6 percent for an average 6.5 hours, and 31.3 percent.

Additional detail on work at home, overtime work, second job, delays at work, etc. provide deeper insights into participation in paid work.

Subjective Indicator: Satisfaction with paid work

This indicator would measure immediate satisfaction with paid work as registered for the current period. The question would be, Is the respondent satisfied with the quantity of time (zero or positive) reported?

Subjective Indicator: Aspired work status

This indicator would identify whether the respondent had desired more or less work time for the reported period.

SUB-CONCERN: PATTERN OF WORK TIME

Most of the existing data fails to elucidate work patterns focusing only on the quantity of work. However, it is becoming increasingly obvious that the tempo and scheduling of working life are major concerns. Issues related to staggering of working hours, variable length work weeks, etc. are constantly requiring data beyond that traditionally available. Inevitably most of the needed data will have to be obtained at the household level.

The required data are a natural product of time allocation studies. Such studies show not only the quantity of time devoted to market work but also when it occurred both in terms of time of day and day of the week. For example, 35.5 percent of the women completing time diaries for Sunday in the Halifax study engaged in normal work on that day. Men averaged 6.1 hours a day, only slightly below the overall daily average while women working that day averaged 5.7 hours compared to 6.1 for women over all days (Harvey et al., 1972).

Objective Indicator: Diary record of work time

A diary record of work and work related time would permit a full description of the implications of various patterns of work time.

Objective Indicator: Nominal working time

This indicator would cover the length of the work day and the work week and the structure of working time. It should distinguish between what is considered full and what is considered part time. Additionally, it should distinguish among such options as normal work hours, shift work, staggered and flexible work time.

Objective Indicator: Seasonal pattern of work

Here relevant varying seasonal work patterns should be documented.

Subjective Indicator: Satisfaction with nominal working time

As with the objective indicators this indicator would cover the length of the work day and work week and the structure of working time.

Subjective Indicator: Aspirations regarding desired work pattern

SUB-CONCERN: INTERGENERATIONAL SOCIAL MOBILITY

The question of the upward and downward movement of individuals on some hierarchy of ranks has been of great interest to sociologists and other

social scientists. In particular, attention has been focused on movement on the occupational hierarchy, either within a person's own career or between fathers' and sons' careers.

The emphasis on intergenerational occupational mobility can be justified from two interrelated points of view in relation to the concerns of governments. In the first instance, it is assumed that most people's social status and economic well-being are derived either directly or indirectly (e.g., on the part of housewives) from their occupations. To the extent that occupations are unequally rewarded - economically, socially and from a psychological perspective - then there is concern over the extent to which particular groups in society may be able to retain certain advantages for themselves to the exclusion of other groups which may be equally capable of performing in the occupations.

Part of the interest in social mobility, therefore, arises from the issue of equality of opportunity in society since chances to gain access to the more rewarding positions should be distributed relatively evenly throughout the population and not be the prerogative of certain groups.

Secondly, it is assumed that highly industrialized societies will only be able to function well if there is a national allocation of people with talents specific to the appropriate occupations. The issue here is not simply the inequity of some groups retaining disproportionate advantages but rather that the most capable people should be in the jobs. Assuming a normal distribution of abilities throughout the population, it is then necessary that adjustments take place between generations as workers move to occupations appropriate to their abilities and training.

High rates of social mobility are generally regarded as a good sign within societies. International comparisons are usually made in relation to the degree of "openness" of a society - high rates of mobility indicate an open society. Canada currently has very little data on intergenerational occupational mobility. Whether Canada is an open society in comparison to other industrial nations, therefore, is a question which cannot yet even begin to be answered, and whether Canadian society is getting more or less egalitarian with respect to mobility is also unknown.

The number of social scientists engaged in studying social mobility is, perhaps, an indication not only of the importance of the field to academics, policy makers and the public, but also of the methodological difficulties involved in such studies. The classification of occupations on some skill or prestige hierarchy is a major undertaking, but the usefulness of mobility studies clearly rests on the classification devised. Additional problems arise with respect to the timing of the comparisons. For example, one finds in the research on social mobility that sons are asked to compare their occupations with those of their

fathers at the same age as they are now; i.e., son is 40 years, what was the father's occupation when he was 40? Other studies ask for the father's occupation when the son was a child or simply compare the son with the father's current or latest occupation. Decisions have to be made, therefore, on which comparisons are of interest and most related to the issues of concern.

Recently, sociologists have been addressing themselves to a further issue, and that is the question of female mobility and the importance of mothers' occupational status for the children's careers. Until very recently virtually all intergenerational social mobility studies have concentrated on father/son mobility. Currently, attention is being directed towards father/daughter mobility and also to the impact the mother's occupational status has on both sons and daughters. Given the increasing interest in the area and the increasing involvement of women in the labour force, it is important that any future studies of intergenerational social mobility consider both sexes.

Although the discussion so far has emphasized occupational mobility, the occupations available to individuals are closely related to their educational attainment. Consequently, the collection of information on intergenerational educational attainment would allow for a more detailed examination of social mobility and a better understanding of whether different occupational attainment between generations should be viewed as upward or downward movement.

Objective Indicator: Occupation of parents and children

This indicator should register the occupations of the subjects at certain specified points in their career. For example, at first job or birth of child.

Objective Indicator: Educational attainment of parents and children

Similar to the foregoing, this indicator should measure attainment at key life points.

Subjective Indicator: Perceived mobility

This indicator would record, for example, whether people consider themselves to be better off or more satisfied with life than their parents.

Subjective Indicator: Expectations of social mobility for one's children

This indicator would measure to what extent individuals want or expect

their children to achieve a different location in the occupational or status structure than they themselves occupy.

SUB-CONCERN: CAREER MOBILITY

Career mobility or intragenerational mobility is not usually viewed from the perspective of equality except where comparisons between men and women or different racial groups are concerned. Rather, the emphasis is on understanding how and why some individuals move to different jobs during their working lives and whether such moves represent an upward or downward movement on the occupational prestige hierarchy. Essentially, therefore, the interest is in work histories and the impact participation in particular occupations has on other aspects of people's lives.

Objective Indicator: Occupational history

This indicator would record occupational changes in chronological fashion.

Subjective Indicator: Satisfaction with career

This indicator is concerned with the individual's feelings about both the speed of career progress and achieved level.

SUB-CONCERN: QUALITY OF WORKING LIFE

Quality of working life encompasses the job and its environment; the satisfaction the job provides, the motivation to perform, and performance as it is affected by these and other factors. Leaders of both management and labour have expressed increasing concern about the quality of work environment and its effect on the productivity, satisfaction and morale of workers.

In the United States, labour-management cooperation in restructuring work arrangements is being actively fostered by several non-profit centres supported largely by grants from the federal or state governments. One of the first, established in 1973, is the Ohio Quality of Work Committee. This group has identified four demensions of QWL: (1) security; (2) equity; (3) individuation; and (4) participation. Under security they attempt to measure such things as job security, security from fiscal harm and so forth. In equity they attempt to measure the worker's perception of equity in pay, in promotion, and in terms of discrimination. Under individuation they attempt to measure the employee's perceptions of his ability to grow and learn, to expand, and to develop his horizons in terms of his work situation. Under participation they attempt to measure the employee's ability to have some kind of impact on decisions that affect his environment.

In 1976, Labour Canada established the Canadian Quality of Working Life Centre, which has as its essential concern the participation of the worker in the determination of the characteristics of his job and his role as a member of the work group, as well as identification of ways and means to increase the exercise of his discretion in matters related to his own performance.

The reason for the establishment of the Centre was the recognition that some sectors of the Canadian industrial relations system and the collective bargaining process were in real trouble, evidenced by the large increase in the number of man-days lost to production through labour-management disputes. It is widely believed that production and productivity gains that have flowed from improved technology and increased worker education and training in recent years are being undermined by the alienation of workers. Indicators of worker dissatisfaction consist of boredom, absenteeism, high turnover, low morale and increased militancy. All are thought to reflect the individual's disenchantment with systems that have made technology the master rather than the slave, and which tend to dehumanize workers.

A recent Economic Council of Canada discussion paper by Newton and Leckie, What's QWL? Definition, Notes and Bibliography, presents a view of QWL involving five broad components:

1. access to work;
2. net attractiveness of the employment package;
3. perceptions, attitudes and responses;
4. actors and their interrelationships; and
5. measurement.

The various components are unified through interrelationships in a schematic framework that details the factors which combine to affect job satisfaction in the individual. In spite of public speculation to the contrary, there does not appear to be conclusive evidence of a widespread dramatic decline in job satisfaction, either in Canada or the United States. Whether discontent in work is a problem also turns on what the consequences are. There does not appear to be convincing evidence of the existence of a direct cause-effect relationship between job satisfaction and productivity. The contribution that increased job satisfaction can make is felt to be the indirect benefits associated with reductions in turnover, absenteeism, alcohol and drug abuse, and sabotage and theft, all of which have been linked to some degree of job dissatisfaction.

Objective Indicator: Absenteeism

The first individual form of protest that a dissatisfied worker may resort to is absenteeism; that is, the loss of worktime by temporary and voluntary withdrawal of services.

Objective Indicator: Job turnover

A more permanent form of withdrawal behaviour stemming from dissatisfaction with the job, pay, or working conditions is employee turnover. The Economic Council of Canada, in People and Jobs (1976), has recently reported on the extent of employee turnover in Canada. A random sample of Canada Pension Plan data related to individuals' earnings from each place of employment revealed that over the five-year period 1968-72 between half and three-quarters of male and female workers in the sample aged 25 to 44 changed employers at least once. One-quarter of males aged 25 to 44 in Ontario had left their jobs in the first year; one-half had left by the fourth year. Among age groups, the 18 to 24-year-olds exhibit the least job permanency. Within the 25 to 44 age group, the highest turnover rates for males exist in the Atlantic Region, which has the lowest turnover rates for females. Turnover rates, as shown, vary by age group, sex, and place of residence. There is also evidence to show that the rates vary by income level, occupation and level of education.

Objective Indicator: Industrial disputes - strikes and lockouts

If individual workers are dissatisfied, the rather spontaneous behaviour of absenteeism, turnover, or sabotage may result as noted above. Group action may also be taken as a form of protest. A strike is a withdrawal of services en masse to back up various job context and content related demands. The number of disputes is an obvious and measurable indicator of worker dissatisfaction.

Objective Indicator: Occupational health and safety

New health and safety provisions of the Canada Labour Code give an employee the right to withdraw, without loss of pay, from a work situation he has reasonable cause to believe poses imminent personal danger. The bill also empowers the Minister of Labour to require the establishment of employer-employee health and safety committees to identify and monitor correction of work hazards. Programs are also authorized to encourage the creation of voluntary safety and health committees.

The provinces of Canada also have Occupational Health and Safety Codes or Acts that require health and safety standards to be followed in order to protect workers in industry.

A Canadian Centre for Occupational Health and Safety was established in 1978 under Bill 35. The Centre is intended to assist in the task of finding new and effective methods of reducing or eliminating health and safety hazards in the workplace. It has been the subject of intensive consultation with provincial authorities, labour

and management groups, specialists in the safety field and other interested parties. One of the main functions of the Centre will be the establishment of an integrated information system on all aspects of occupational health and safety, dissemination of authoritative information and the stimulation of research in this area. This would appear to be a more comprehensive approach to the gathering of objective statistics on occupational health and safety than would be possible using a household survey.

Subjective Indicator: Perceived occupational health and safety

Industrial accidents, sickness and mental health problems can be caused by workplace conditions leading to hazards that are only too obvious to health and safety inspectors. Workers perceptions of unsafe conditions, uncomfortable work stations, heavy work loads and mental stress can also lead to industrial accidents or breakdowns in mental or physical health. These perceptions could be elicited through the household survey technique.

Subjective Indicator: Perceptions of industrial disputes

Industrial disputes (strikes and lockouts) do not appear to occur in either the industrial sectors or various jurisdictions within the Canadian economy with any substantial amount of regularity. Given the limited sample of workers who would be interviewed in a household survey, it would be very difficult to predict future labour unrest from attitudes towards work and the workplace.

On the other hand, it might be desirable to assess the attitudes toward, and perceptions of, industrial strife held by the general population. The household survey technique would appear to be satisfactory for this purpose.

Subjective Indicator: Satisfaction with job

In 1973-74 Canada Manpower and Immigration carried out a job satisfaction survey of the Canadian workforce and found that nearly 90 percent of workers described their jobs as providing some degree of satisfaction. This majority was characterized by fewer job changes and periods of unemployment, less desire to leave the current job, and a greater sense of long term commitment to a job.

In describing ideal jobs, the most important characteristics stressed by workers were that the work be interesting, that they have enough information and authority to do the job, and that they be given opportunity to develop special abilities.

When aspects of jobs were ranked according to the satisfaction they provided in current employment having enough authority and information, friendliness of co-workers and supervisors, interesting tasks and seeing the results of one's work emerged as the most satisfying characteristics.

The greatest discrepancy between worker's actual jobs and job aspirations was with respect to promotional opportunities.

These results are similar to the findings of HEW in the United States which produced Work in America. This is not surprising since both are based largely upon the University of Michigan's Survey of Working Conditions. A major criticism has been raised concerning the finding that workers in the United States might not value their pay more than the content of the work itself (Fein, 1973). Fein has pointed out that the results of the Michigan survey were severely distorted by the methodology used. The original results were based upon a composite worker response; that is, an average of all working persons surveyed from "president to floor-sweeper". Fein had the data rerun stratified by occupation groups. When the blue collar data were separated from other occupations the results were quite different. For blue collar workers, good pay and job security moved up the scale of importance and interesting work moved down.

Respondents in the Canadian study were asked to select the single most important job feature that would induce them to switch employment. Without exception each age group selected more pay over interesting work and promotional opportunities. As age increased more importance was attached to salary increase and less to promotional opportunities. There was also a tendency as workers aged to consider job security an important factor.

BIBLIOGRAPHY: EMPLOYMENT

1. Barbash, Jack. Job Satisfaction Attitudes Surveys. OECD Industrial Relations Programme Special Studies. Paris: OECD, 1976.

2. Blau, Peter Y. and Otis Dudley Duncan. The American Occupational Structure. New York: Wiley, 1967.

3. Burstein, M. et al. Canadian Work Values, Findings of a Work Ethic Survey and a Job Satisfaction Survey. Ottawa: Manpower and Immigration, 1975.

4. Chase, Ivan. "A Comparison of Men's and Women's Intergenerational Mobility in the United States", American Sociological Review, Vol. 40, 1975, 483-505.

5. DeJong, Peter Y., Milton J. Brawer and Stanley Robin. "Patterns of Female Intergenerational Occupational Mobility: A Comparison with Male Patterns of Intergenerational Occupational Mobility", American Sociological Review, Vol. 36, 1033-42.

6. Duncan. O.D., D.L. Featherman and B. Duncan. Socio-Economic Background and Achievement. New York: Seminar Press, 1972.

7. Economic Council of Canada. People and Jobs: A Study of the Canadian Labour Market. Ottawa: Information Canada, 1976.

8. Fein, Mitchell. "The Real Needs and Goals of Blue Collar Workers", The Conference Board Record. New York: NICB, February 1973.

9. Fox, Thomas and S.M. Miller. "Intra-Country Variations: Occupational Stratification and Mobility", in Readings on Social Stratification, Melvin M. Tumin (ed.). Englewood Cliffs, N.J.: Prentice-Hall, 1970, 311-22.

10. Goyder, J.C. and J.E. Curtis. "Occupational Mobility in Canada over Four Generations", in Canadian Review of Sociology and Anthropology, Vol. 14, No. 3, August 1977, 303-319.

11. Harvey, Andrew S., David H. Elliott and Dimitri Procos. Computer Listings: Dimensions of Metropolitan Activity Survey, 1971-1972. Halifax: Institute of Public Affairs, Dalhousie University, 1972.

12. Harvey, Edward B. and Ivan Charner. "Social Mobility and Occupational Attainments of University Graduates", in Canadian Review of Sociology and Anthropology, Vol. 12, No. 2, May, 1975, 134-149.

13. Havens, Elizabeth M. and Judy Corder Tully. "Female Intergenerational Mobility: Comparison of Patterns", Amercian Sociological Review, Vol. 37, 1972, 774-777.

14. International Labour Office. Bibliography on Major Aspects of the Humanization of Work and the Quality of Working Life. Geneva: ILO, 1977.

15. Labour Canada. Toward a Better Working Environment. Ottawa: Labour Canada, 1976.

16. Lipset, Seymour M. and Reinhard Bendix. Social Mobility in Industrial Society. Berkeley, California: University of California Press, 1959.

17. Lipset, Seymour M. and Hans L. Zetterberg. "A Theory of Social Mobility", Transactions of the Third World Congress of Sociology III (1956), 155-177.

18. Macdonald, W. Stephen. Productivity in Nova Scotia: A Review of the Literature and Annotated Bibliography. Halifax: Institute of Public Affairs, Dalhousie University, 1976.

19. Maiolo, John R. Research on Job Satisfaction. Council of Planning Librarians Exchange Bibliography No. 762. Monticello: CPL, 1975.

20. National Center for Productivity and Quality of Working Life. Recent Initiatives in Labour-Management Cooperation. Washington: 1976.

21. National Commission on Productivity and Work Quality. Labour-Management Productivity Committees in American Industry. Washington: 1975.

22. Newton, Keith, and Norman Leckie. What's QWL? Definition, Notes and Bibliography. Discussion Paper No. 100. Ottawa: ECC, 1977.

23. Organisation for Economic Cooperation and Development. Measuring Social Well-Being. Paris: OECD, 1976.

24. Pineo, P., J. Porter and H. McRoberts. "The 1971 Census and the Socioeconomic Classification of Occupations", in Canadian Review of Sociology and Antropology, Vol. 14, No. 1, February 1977, 91-102.

25. Portigal, Alan H. Towards the Measurement of Work Satisfaction. The OECD Social Indicator Development Programme Special Studies No. 1. Paris: OECD, 1976.

26. Rosenfeld, Rachel A. "Women's Intergenerational Occupational Mobility", in American Sociological Review, Vol. 43, 1978. 36-46.

27. Statistics Canada, Perspective Canada II. Ottawa: Minister of Supply and Services, 1977.

28. Tepperman, Lorne. "Demographic Aspects of Career Mobility" in Canadian Review of Sociology and Anthropology, Vol. 12, No. 2, May 1975, 163-177.

29. Tepperman, Lorne. Social Mobility in Canada. Toronto: McGraw-Hill Ryerson, 1975.

30. Turritin, A.H. "Social Mobility in Canada: A Comparison of Three Provincial Studies and some Methodological Questions" in Canadian Review of Sociology and Anthropology (A special publication on the occasion of the Eighth World Congress of Sociology) 1974, 163-186.

31. Tynee, Andrea and Judith Treas. "The Occupational and Marital Mobility of Women" in American Sociological Review, Vol. 39, 1974, 293-302.

32. U.S. Department of Health, Education and Welfare. Work in America. Cambridge: The MIT Press, 1973.

33. U.S. Department of Labor. Job Satisfaction: Is There a Trend? Manpower Research Monograph No. 30 (Washington: USGPO, 1974).

PERSONAL ECONOMIC SITUATION

The economic situation of individuals and households is a major political concern. This is true both from an equity point of view and from the point of view of the management of the economy. While considerable data exist on the economy in general, data on all its several actors (individuals, households, families, firms and government) are quite uneven. In particular, data on individuals, households and families are somewhat spotty and infrequent. Thus, while we have considerable annual detail on most industries and on government operations, etc., data on the economic situation of individuals and households lack both detail and regularity. While measurement problems and costs increase as the size and sophistication of the economic unit decreases, the aim of the economic system is not (or should not be) to maximize the well-being of firms or government (which, in fact, are only agents of individuals), but of the individuals themselves. Thus attempts must be made to obtain improved data on households and individuals.

It is the economic well-being of the individual or family unit in contrast to the economic well-being of the economy that is of concern here. In particular, the concern is the way the individual evaluates his situation as opposed to an imposed calculation of well-being.

While employment, income and other objective measures are currently available, they make only a partial contribution to the understanding of individual financial circumstances necessary to monitor change. There is clear evidence that an individual's perception of his current economic situation may well be the most relevant factor determining his behaviour, and this perception is unlikely to be inferrable from the objective situation.

SUB-CONCERN: FINANCIAL SITUATION

An individual or spending unit's financial situation as consideredhere is concerned with the extent to which it is going into debt on one hand or is saving money on the other. It is basically the current relationship between income and expenditures.

Objective data on financial circumstances may provide little indication of satisfaction. This is due to the fact that it is the perceived situation matched with aspirations or expectations which provides the basis for evaluation. Thus it is necessary to gain insights into perceptions, expectations and aspirations in addition to objective amounts.

Objective Indicator: Factual income, assets, indebtedness, and expenditure data

These data are currently collected.

Subjective Indicator: Perceived financial situation

This indicator focuses on the spending units opinion of the current financial situation and recent and expected changes in this situation. A recommended method for this indicator is the self anchoring ladder scale.

Subjective Indicator: Satisfaction with financial situation

This indicator seeks to determine the level of satisfaction with the unit's overall financial situation.

SUB-CONCERN: "STANDARD OF LIVING"

Although an individual or spending unit's financial situation (relation between income and expenditure) may be perceived or measured as good, this may not be any indication of the unit's standard of living. In reality, the concept of "standard of living" must be considered highly subjective. This point is aptly made in Apel and Strumpel (1976). Additionally, income and expenditure data represent only a part of the objective elements that go to make up "standard of living". Assets and commitments in living arrangements must also be taken into consideration. Thus, it is necessary to evaluate standard of living separately from financial situation.

Subjective Indicator: Perceived "standard of living"

This indicator deals with the expressed concern of individuals as captured by the term "standard of living" for past years and future year(s). The purpose is to determine the extent to which income is seen as providing for a "comfortable" life. The self anchoring ladder scale is recommended here.

Subjective Indicator: Satisfaction with "standard of living"

This indicator seeks to determine the level of satisfaction with the spending unit's perceived overall standard of living.

SUB-CONCERN: RELATIVE INCOME

A key goal of an economic system is equity. In essence this does not

mean that everyone receives the same but that people in like circumstances be treated equally. This understanding appears to pervade the satisfaction literature. That is, people tend to compare themselves with their peer group or "relevant others" rather than with groups above them.

The above observation, coupled with the work of Strumple, suggests that while in general satisfaction is measured in terms of "relevant others", concern should be given as well to "entitlement" or perceived fairness or equity of monetary rewards going to the peer group; that is, satisfaction should be decomposed into the individual's perceived treatment relative to his peer group and his perceved treatment of his peer group relative to other occupational groups.

Subjective Indicator: Perceived personal remuneration relative to peer group

This measures how the respondent perceives his income in relation to his peer group. Does he believe he receives more or less. This perception can be checked with actual income data.

Subjective Indicator: Perceived peer group remuneration relative to other occupational groups

This measures how the respondent perceives the remuneration accorded his peer group in relation to other groups in the economy. Does the group on average receive more or less.

Subjective Indicator: Satisfaction with remuneration relative to peer group

This measures the respondent's satisfaction with his income when comparing it to that of his peers.

Subjective Indicator: Satisfaction with remuneration of peer group relative to other occupations

This measures the extent of satisfaction with the way the peer group fits into the general income scheme of the economy.

BIBLIOGRAPHY: PERSONAL ECONOMIC SITUATION

1. Apel, Hans and Burkhard Strumple. "Economic Well-Being as a Criterion for System Performance: A Survey in Bulgaria and Greece", in Burkhard Strumple (ed.), Economic Means and Human Needs (Ann Arbor: Institute for Social Research, 1976).

2. Hawrylyshyn, Oli. "Evaluating Household Work: Theoretical and Methodological Approaches". Working Paper No. 2, Non-Market Activity Project. Ottawa: Statistics Canada, n.d.

3. Price, Dorothy Z. "A Technique for Analyzing the Economic Value System", Journal of Marriage and the Family, August 1968, pp. 467-472.

4. Strumple, Burkhard. "Economic Well-Being as an Object of Social Measurement", Subjective Elements of Well-Being. Paris, OECD, 1974.

5. Strumple, Burkhard. "Economic Life-Styles, Values, and Subjective Welfare - An Empirical Approach", in Eleanor Bernert Sheldon (ed.), Family Economic Behaviour. Toronto: J.B. Lippincott Company, 1973.

6. Withey, Stephen B. "Values and Social Change", Subjective Elements of Well-Being. Paris: OECD, 1974.

CONSUMPTION

Consumption, or more accurately purchasing, the end product of the market system, is one of the two major interfaces of the individual and the market system, the other being market work.

In striving to maximize his benefits in the market, one role of the consumer is to reward economic efficiency and performance on the part of producers. Ideally, the consumer's dollar is sovereign. This, however, only holds true if the consumer is properly informed. As Maynes (1972: 271) points out, the consumer needs to know the following:

1. What products, brands, sellers exist and where they are available.
2. What characteristics of a product are desirable (product information).
3. The extent to which particular product-brand-seller combinations possess the desired characteristics.
4. Prices of product-brand-seller combinations.

Even armed with this information, if consumers are not provided adequate alternatives at relatively reasonable prices, they are not properly serviced by the market. Nor are they properly serviced in the presence of a high volume and unsatisfactory resolution of consumer grievances. The concern that the marketplace has been failing on an increasing number of occasions, in the absence of any clear indicators either pro or con, has led to an increasing consumer militancy and to increasing movement of government into the area of consumer affairs. The rapid growth of both consumer oriented organizations and publications bears strong testimony to this fact. As an example, the circulation of Consumer Report doubled from 1,100,000 to 2,200,000 between 1967 and 1972 (Maynes, 1973).

SUB-CONCERN: CONSUMPTION ACTIVITY

The purchase of consumer durables, non-durables and services requires the expenditure of effort, best measured in terms of time expended. Similarly, the maintenance and repair of consumer goods requires further such expenditure.

Coincident with the rise of consumerism and growing government involvement in consumer affairs has been a growing interest in the relationship between time and consumption. "Time is both an antecedent to and a consequence of purchase. Consumers not only spend time and money to acquire products and services that also often use time as a substitute for money and vice versa" (Jacoby, et al., 1976). The

importance of time in the marketplace is suggested by work such as that of Acton, which showed that the demand for medical services "is already more sensitive to variations in time prices than it is to variation in money prices (Acton, 1975:vi)."

The variation in time spent purchasing goods and services both over time and over space is evident in a number of studies. For example, a 73 percent increase between 1953 and 1965 in hours spent in shopping and personal business trips was registered in the Detroit Transportation and Land Use Study (Robinson, 1972). And it was found that there was a 67 percent greater amount of time spent at the purchase of goods and services on average in the five largest cities of Norway, compared to all other areas of the country (Norway Central Bureau of Statistics, 1975). Monitoring of such time expenditures will provide some insight into the overall efficiency of the consumer market, both from place to place and over time.

Time allocation data show not only the extent of effort and time devoted to shopping and related travel, but also the distribution across the population and over time. For example, in Halifax, participation and time spent purchasing consumer goods and food ranged from 20.1 percent of males spending an average of 18 minutes on Sundays to 57.7 percent of females averaging 64 minutes on Fridays (Harvey et al., 1972).

Money expenditures are presently adequately covered by the consumer expenditure survey. There is, however, no information on consumption time.

Objective Indicator: Time spent on purchasing

This indicator will show the amount of time devoted to purchasing goods and services. Such data will facilitate an evaluation of the efficiency of the productive and distributive system.

For example, activity codes assigned to such activity by the multinational study (Szalai, 1972) included the following:

Code	Activity
30	marketing
31	shopping
32	personal care
33	medical care
34	administrative services
35	repair and other services
36	waiting in line
37	other services
39	travelling for purchase

SUB-CONCERN: CONSUMER SATISFACTION

It is not within the purview of Statistics Canada to collect data at a brand level. However, government is concerned with the general level of consumer satisfaction. This is evidenced by the existence of the Department of Consumer Affairs and a number of other agencies. This concern, plus the fact that consumption constitutes a most basic function, indicates a need for general measures of satisfaction in major consumption areas.

Subjective Indicator: Consumer satisfaction

This indicator or group of indicators would measure the level of consumer satisfaction with purchases in the market place covering such groups as housing, food, clothing, cars and appliances.

In this area, for example, Anita Pfaff has found that satisfaction "appears to be a rather specific phenomenon; there were significant differences in satisfaction levels between home owners and renters. In addition, there were significant differences in mean satisfaction scores between attributes within the group of home owners as well as within the group of renters" (Pfaff, 1976:195).

Subjective Indicator: Consumer grievances

This indicator is to identify both the number of initial and unresolved consumer grievances which result from (a) performance failures, (b) innocent failure of communication, or (c) misrepresentation, deception and fraud.

BIBLIOGRAPHY: CONSUMPTION

1. Acton, J.P. Demand for Health Care When Time Prices Vary More than Money Prices. New York: Rand Institute, May, 1973.

2. Harvey, Andrew S., David H. Elliott and Dimitri Procos. Computer Listings: Dimensions of Metropolitan Activity Survey, 1971-72. Halifax: Institute of Public Affairs, Dalhousie University, 1972.

3. Jacoby, Jacob, George J. Szybillo and Carol Kohn Berning. "Time and Consumer Behavior: An Interdisciplinary Overview", Journal of Consumer Research, 2 (1976), pp. 320-39.

4. Maynes, E. Scott. "Consumerism: Origin and Research Implications", in Eleanor Bernert Sheldon (ed.), Family Economic Behaviour. Toronto: J.B. Lippincott Co., 1973.

5. Norway. Central Bureau of Statistics. The Time Budget Survey 1971-72, Vol. I. Oslo: Central Bureau of Statistics, 1975.

6. Pfaff, Anita B. "The Quality of Consumption", in Burkhard Strumple (ed.), Economic Means and Human Needs. Ann Arbor: ISR Survey Research Center, 1976.

7. Robinson, John P. and Philip E. Converse. "Social Change Reflected in the Use of Time", in Angus Campbell and Philip E. Converse, The Human Meaning of Social Change. New York: Russell Sage Foundation, 1972.

8. Szalai, Alexander et al. The Use of Time. The Hague: Menton, 1972.

LEISURE

There is disagreement as to what constitutes leisure. However, the most frequently occurring theme in its identification or definition is that it is a residual, "that part of the day or year in which what an individual does is not imposed on him either by his physiological needs or by his commitments to others" (U.N., 1975:10). Typically, it is defined as that portion of time remaining after time devoted to work (market, household, and family) and other obligatory activities, such as sleeping and eating, is accounted for (Lundberg et al., 1934). While this approach is empirically somewhat neat, it is conceptually fraught with difficulties. There is little question conceptually that there is some, if not much, overlap between "obligatory" time and "leisure" time. Noe argued that "leisure is a subset of autonomy which allows a certain amount of flexibility to occur within the work role" (Noe, 1971:220). Thus, he concluded that an "executive possessed more leisure within his work situation and less outside while the blue collar worker enjoyed more leisure outside the work situation and less inside" (Noe, 1971: 220). Ennis (1968:527-28) argues similarly that leisure is ". . . institutionally interstitial . . . not contained in any single institutional area . . .".

Dumazedier (1967) argues that, in addition to being freedom from obligation, leisure can be viewed as being sought for diversion or relaxation. Thus, a leisure activity is undertaken for its own sake, not as a means to fulfill another need or obligation. Ennis, on the other hand, argues that leisure "can fulfill a variety of functions for the individual. At various times a person can find in his leisure either tension release, creative expression, self-improvement, social integration, symbolic status defense or enhancement, and other gratifications, some of which are less consciously apprehended than others" (Ennis, 1968:528). Similarly, Meyersohn (1972) points out that "four distinct meanings are allotted to the concept of leisure: (1) leisure as rest, respite, restoration; (2) leisure as entertainment; (3) leisure as self-realization; and (4) leisure as spiritual renewal." Thus, while leisure may be an end in itself, it is not necessarily so.

Ennis further argues that, while leisure may be free in one sense, it "invites specific normative control from other sources, notably from the specific social contexts in which a given leisure activity is placed or from the general values which permeate the culture as a whole" (Ennis, 1968:528). He goes on to suggest that leisure is "implicitly defined by the norms directing people toward freedom (spontaneity), pleasure, and expressiveness."

Neulinger (1974:24), examining empirically the meaning of leisure, found that responses to the question, "What is leisure?" fell into three distinct groups ". . . according to the emphasis of the total response, as follows:

a - emphasis on leisure as discretionary time (77%);
b - emphasis on leisure as discretionary activity (18%);
c - emphasis on leisure as a state of mind (5%)."

While, as he points out, these findings were not from a random sample, they are clearly suggestive of the temporal aspect of leisure as opposed to the activity or cerebral orientation.

The purpose above was not to derive a composite definition of leisure, but to suggest a number of dimensions which must be deemed relevant to its measurement and study. Among the dimensions identified are freedom from obligation, attitude (satisfaction), motivation, and values. Each of these dimensions plays a role in defining leisure. Thus, monitoring of leisure should consider each of these aspects.

SUB-CONCERN: AGGREGATE LEISURE ACTIVITY

Independent of specialized issues of the various demands on or uses of leisure time one can consider the context in which leisure occurs. In other words one can consider the aggregate quantity of leisure and its distribution over time, space and people. For example, in Halifax 15.4 percent of all discretionary activities occured at home, in the evening with family present and lasted over one hour (Harvey, 1978).

It is also reasonable to consider summarily the content of leisure independent of any analysis of particular content areas. One can consider the distribution of relevant variables over culture, organization participation, sports, etc. without examining the content of any of these areas. This would appear to be the first step in developing an understanding of leisure time and activities.

Objective Indicator: Time spent free from obligation

The importance of the quantity or free time to the measurement of leisure is clearly evident in our discussion of the definition of leisure. Time provides a frame, a temporal space for things to occur in. Time, or rather a specific type of time (free time), sets the outer limits for the duration of potential leisure activities.

Time spent on leisure activities is typically collected by means of closed questions; thus, the comments below relating to collection of participation data apply here as well. In referring specifically to durations, Robinson observed that "when one wants time use figures that correspond fairly closely to how people actually spend their time . . . then the diary seems the most reasonable source of such data (Robinson, 1977:21)."

Objective Indicator: Annual pattern of free days

In general this indicator would capture the number and distribution of days free from obligation. It would be related to indicators of the pattern of work time in order to identify blocks of time which might be taken away from home.

Objective Indicator: Activity participation by type

Equally as important as the quantity of leisure is the type of activities to which that leisure is devoted. Thus, it is necessary to identify the types of activities engaged in by individuals. Activity participation has two dimensions - diversity, or the range of leisure activities engaged in; and involvement, the extent of participation (Schliewen, 1977:114-119) - both of which must be captured. This indicator would serve as a general measure of the content of leisure time and as a filter into more specialized areas of leisure.

Although the concept of free time is central to the concept of leisure, leisure activities are not confined to such periods of time. Often individuals pack one or more activities into the same time period, generally coupling a leisure activity with an obligatory one. The secondary nature of many activities can be seen in Table II-1 which shows, for example, that of an average 57 minutes a day spent listening to the radio 53 minutes is spent as a secondary activity; that is, while doing something else. Thus 93 percent of all radio listening and 88 percent of all conversations are secondary activities. This situation must be captured in any measurement of leisure.

This information has been collected in the Canada Leisure Survey; however, for more accurate measurement it is necessary to go beyond mere recording of participation in a closed set of activity categories and a closed set of frequency or duration categories. Robinson, comparing the diary technique with a closed question approach, found that in the latter respondents "gave estimates that overestimated their participation in less frequent events and underestimated participation in more frequent events" (Robinson, 1977:17).

Objective Indicator: Non-home based days

Time budget studies have shown the great difference between leisure activities at home and those occuring away from home. Differences similar in magnitude can be expected between behaviour on days where home is the "home base" and days where one does not return home. In particular such days imply a demand for certain goods and services not otherwise demanded. Thus, the number of non-home based days should be monitored. This indicator is a significant factor in evaluating indicators under the sub-concern "holidays".

Table II-1

AVERAGE DURATION AND PARTICIPATION IN SECONDARY DISCRETIONARY TIME ACTIVITIES AND TOTAL PARTICIPATION IN DISCRETIONARY TIME ACTIVITIES, HALIFAX, 1971-72

	Duration (Minutes)		Secondary/ Total (Percent)	Total Participation (Percent)
	Secondary	Total		
Non Home Centered				
Study	1	19	5	9
Religion	0	5	0	6
Organization	0	6	0	4
Active Sports	1	7	14	7
Outdoors	1	5	20	7
Entertainment	1	8	13	6
Cultural Events	0	1	0	1
Movies	1	3	33	2
Social Visiting	5	65	8	50
Total Non Home Centered	10	119	8	
Home Centered				
Radio	53	57	93	58
Television	29	126	23	79
Read Paper	5	16	31	38
Read Magazine	6	16	38	22
Read Books	2	7	29	9
Conversation	151	172	88	88
Resting	6	29	21	37
Other Leisure	13	37	35	39
Total Home Centered	265	460	58	

Objective Indicator: Expenditures on leisure activities

Expenditure data are currently collected by the family expenditure survey. While a significant portion of leisure time is passed without a direct expenditure, an equally significant portion requires an expenditure. Thus, expenditure helps identify both the use of and barriers to certain types of leisure activity. A well reasoned case for the relationship between leisure time and leisure expenditure has been made by Linder (1970) who has argued that rising incomes lead to the substitution of goods for time in leisure consumption. This, he argues, occasions greater diversity of leisure activities and thus the rise of the "Harried Leisure Class".

Among expenditures which should be considered are expenditures other than direct expenditures on or for leisure activities. Equally important are such indirect expenditures as travel and sitters which it has been suggested can amount to nearly half the total explicit costs (Book and Globerman, 1975).

Additional consideration should be given to purchase of leisure time activity durables.

Kelly (1973) examined the relationship between leisure expenditure, time devoted to it, and the value assigned to it. His findings were that there was no significant correlation between expenditures and these other measures. Thus, information on leisure expenditures should not be considered a proxy for either leisure time allocation or activity value. It is, however, germane to any analysis of leisure.

Objective Indicator: Possession of leisure assets

Linder has argued that increasing income leads to the growth of goods-intensive leisure. To an ever increasing extent, people are investing in a wide range of leisure oriented goods ranging from television sets, stereos, and video recorders to snowmobiles, trailers, recreational vehicles and vacation homes.

There can be little question that this trend has profound implications for the use and future of leisure. It is thus important in any attempts to monitor changes in leisure to monitor the accumulation of such assets.

Subjective Indicator: Leisure time interests

Actual leisure participation or involvement may be indicated by the foregoing objective indicators. However, such indicators may be poor indicators of overall interests since the realization of such interests is heavily dependent on opportunities to engage in desired leisure

activities, real or perceived. Therefore, it is necessary to measure as well preferences for, or interest in, the several leisure endeavors.

Subjective Indicator: Perceived constraints on leisure time opportunities

The role of opportunity in shaping leisure time activities cannot be overstated. For example, the 1975 leisure study (Schleiwen, 1977) showed that 17 percent of the residents of P.E.I. attended theatre performances at least once in July or August. This is nearly 70 percent higher than any other province, undoubtedly reflecting the presence of continuous live theatre at the Confederation Centre in Charlottetown and the relative ease of access to Charlottetown from anywhere in P.E.I. As another example, the earlier observation that a much larger percentage of the population watches much TV than gets much satisfaction, while many more get much satisfaction from attending fairs and exhibits than actually register much attendance, strongly suggests the role played by opportunity.

The foregoing alludes only to actual opportunity, which technically could be measured without a household survey; however, people act not on the basis of objective reality but on the basis of perceived reality. To obtain insights on the latter it is necessary to use a household survey to identify perceived constraints on activities participation.

Subjective Indicator: Satisfaction with leisure

Campbell et al. (1976:75) found that "the domain most strongly related to that global index [of well-being] is that of nonworking, or spare-time activities . . . ." It is thus important to capture an evaluation of the level of satisfaction of leisure, particularly since participation figures or other objective measures may indicate little about the actual satisfaction individuals derive from their leisure time activities.

An example of the deviation between participation and satisfaction can be drawn from the Halifax DOMA study, see Table II-2. An approximately equal number of respondents got much satisfaction from and participated frequently in social visiting; however, many fewer respondents getting much satisfaction from attending fairs and exhibits and movies actually attended frequently. On the other hand, it was apparent that many people watching TV and relaxing do not derive much satisfaction from them.

SUB-CONCERN: "CULTURAL" ACTIVITIES

As with the definition of leisure, the definition of culture is somewhat elusive; however, from the considerable amount of work already addressed to this subject by Statistics Canada, there is a concensus on a number of

items to be included under the concept of culture. The work to date covers both content areas of culture and the fact that attention must be focused on production, distribution, preservation and consumption (utilization) of culture. Data collected at the household level should reflect each of these aspects.

Table II-2

SATISFACTION AND PARTICIPATION IN SELECTED LEISURE ACTIVITIES
HALIFAX, 1971-72

	Much Satisfaction	Much Participation	Difference
	%	%	%
Attend fairs and exhibits	42.9	4.3	38.6
Attend movies	44.4	18.5	25.9
Visit museums and art shows	34.2	15.7	18.5
Social visiting	71.7	70.9	.8
Relax/do nothing	60.0	70.0	-10.5
Watch TV	56.1	93.4	-37.3

It is important to observe that the "cultural" items incorporated in this sub-concern represent only a sub-set, tending toward what is commonly considered "highbrow culture", of the total cultural experience. Equally integral parts of culture are sports, patterns of socializing, worker attitudes, political structure and many other factors. The concept of culture used here is a useful organizing framework for examining a significant part of leisure and cultural experience.

Many of the cultural forces not captured here are in fact captured in relevant sub-concerns elsewhere.

The indicators of "cultural" activity consist of many of the objective and subjective indicators identified for leisure in general, including:

a) time spent
b) activity participation
c) money expenditures
d) possession of cultural assets
e) interests
f) opportunities
g) satisfaction

Additionally, consideration should be given to the creation and preservation of cultural artifacts that may elude identification elsewhere. Thus, the household survey vehicle can be used to identify writers, artists, etc. that may be creating cultural artifacts in an informal but unrecognized manner. Additionally, such a vehicle can be used to identify the existence and distribution of antiques, rare books and other cultural artifacts of our heritage outside the formal preservation structure.

Objective Indicator: Personal collection of cultural artifacts

This indicator would provide information on the number and types of cultural artifacts. Among items identified could be the following:

a) historic houses
b) rare books
c) paintings
d) antiques

SUB-CONCERN: OUTDOOR RECREATION

As in the area of culture, although at a less definite level, considerable attention has been given to the area of outdoor recreation (Parks Canada, 1976 and 1977). Any specialized leisure work in this area should draw on this work.

Indicators would be comparable to those included under Cultural Activity. Additionally, indicators of the annual pattern of free days and of non-home based days are particularly relevant.

SUB-CONCERN: INDOOR RECREATION

The area of indoor recreation has received considerably less attention than have outdoor recreation and culture. Considerable work of a definitional and analytical nature is needed in this area; however, the

indicators applicable to culture and other leisure areas generally are applicable here.

SUB-CONCERN: ORGANIZATIONAL PARTICIPATION AND VOLUNTEERISM

An area of special interest in the study of leisure time activities is participation in organizations and in organizational and voluntary activities. According to the Halifax DOMA study, approximately 36 percent of the surveyed population participated in club meetings or activities, with approximately half of them doing so as frequently as every 2 - 3 weeks.

In general, the indicators discussed for the other specialized leisure areas are relevant here as well. Additionally, information should be sought on relevant organizations.

SUB-CONCERN: SOCIALIZING

A significant aspect of leisure time is the scope it provides for social activity. In the Halifax study approximately 27 percent of total discretionary time was spent with non-family members. In contrast, only 14 percent of all time is spent with this group. In general, social activity has at least two dimensions; what is being done, and with whom it is being done. Often social activity is not perceived as such by individuals. This is evidenced by the wide discrepancy between its occurrence in diaries and in activity lists. For example, in a U.S. study on an activity list average daily participation in social visiting was 11 percent; diaries, however, showed the actual figure to be 23 percent (Robinson, 1977:18). Comparable findings for Halifax were 9 percent and 38 percent. The discrepancy is explainable in terms of the respondents' view of visiting as a planned activity, while in reality much if not most social activity is routine or chance and thus tends to go unnoticed by individuals.

Indicators of social activity are in general comparable to those for the other specialized leisure areas. However, particular attention should be focused on the individuals with whom one is interacting in any particular activity since shopping, although not a leisure activity, if it is done with a friend or neighbour would undoubtedly represent a social activity.

SUB-CONCERN: HOLIDAYS

While free time activities constitute the major portion of leisure activity, another significant feature is holiday time. Holiday refers to a certain minimum period of absence from home. Holidays represent a specific use of free days and "imply a demand for many goods and

services, in particular, for transport, hotel, and restaurant services." They involve comparatively large personal expenditures and also, in many cases, the purchase of special equipment such as caravans (U.N., 1975).

In general, the major leisure indicators are applicable here, and in particular, the indicators relating to the annual pattern of free days and to non-home based days.

BIBLIOGRAPHY: LEISURE

1. Book, S.H. and S. Globerman. The Audience for the Performing Arts. Toronto: Ontario Arts Council, 1975.

2. Campbell Angus, Philip E. Converse and Willar L. Rodgers. The Quality of American Life. New York: Russell Sage Foundation, 1976.

3. Dumazedier, Joffre. Towards a Society of Leisure. London: Collier-Macmillan, 1967.

4. Ennis, Philip H. "The Definition and Measurement of Leisure" in Eleanor Sheldon and Wilbert E. Moore, Indicators of Social Change. New York: Russell Sage Foundation, 1968.

5. Ferland, Yvon. "Can Culture be Measured", in Canadian Statistical Review. Ottawa: Statistics Canada, 1977, January, 1977.

6. Harvey, Andrew S. Discretionary Time Activities in Context. Halifax: Institute of Public Affairs, Dalhousie University, 1978.

7. Kelly, John. "Three Measures of Leisure Activity: A Note on the Continued Incommensurability of Oranges, Apples and Artichokes", Journal of Leisure Research, Vol. 5, No. 3, 1973, pp. 56-65.

8. Linder, Staffan. The Harried Leisure Class. New York: Columbia University Press, 1970.

9. Lundberg, George A., et al. Leisure: A Suburban Study. New York: Columbia University Press, 1934.

10. Meyersohn, Rolf. "Leisure", in Angus Campbell and Philip E. Converse, The Human Meaning of Social Change. New York: Russell Sage Foundation, 1972.

11. Neulinger, John. The Psychology of Leisure. Springfield, Illinois: Charles C. Thomas, 1974.

12. Noe, Francies P. "Autonomous Spheres of Leisure Activity for the Industrial Executive and Blue Collarite", Journal of Leisure Research, Vol. 3, 1971, pp. 220-249.

13. Parks Canada. Canadian Outdoor Recreation Demand Study: An Overview and Assessment. Vol. 1. Waterloo: Ontario Research Council on Leisure, 1976.

14. Parks Canada. Longitudinal Data on the Participation of Canadians in Outdoor Recreation Activities 1967-1976. Ottawa: Parks Canada, 1977.

15. Robinson, John P. How Americans Use Time. New York: Praeger Publishers, 1977.

16. Schliewer, Rolf E. A Leisure Study-Canada 1975. Published for Arts and Culture Branch, Secretary of State; Ottawa: Constat Consulting Services Limited, 1977.

17. United Nations. Toward a System of Social Demographic Statistics. New York: United Nations Department of Economics and Social Affairs, 1975.

RESIDENTIAL ENVIRONMENT

Residential environment refers to a complex set of factors related to the residence of individuals. Included are the adequacy and quality of the physical setting in which the residence is located and the adequacy of the opportunity structure (i.e., access to work, commercial and recreational facilities, etc., and the absence of constraints such as unsafe streets, etc.). Thus, the residential environment must be viewed as a bundle of characteristics; it cannot be treated simply as housing.

Since the residential environment represents the major opportunity structure (accessibility to work) of individuals and the home represents the site for two-thirds of all activity undertaken by individuals 18 years and older (that approximately 16.6 hours a day are spent at home was recorded in both the Halifax and Norwegian Time Budget Studies), it can be expected to play a key role in both the objective and subjective level of living or well-being of individuals.

An extensive quantity of objective housing data exist relating to tenure, structure types and characteristics; however, there is little if any objective data on other aspects of the residential environment such as opportunity structure (accessibility to work, goods, service and facilities). There is little or no subjective information on either housing or other environmental characteristics. Such information is a major prerequisite to any accurate monitoring of changes in the area of housing and residential environment.

As Stone has pointed out in a study for the U.N., "according to Wilkinson, house prices are on the whole rather more responsive to environmental than structural factors. This means that we should obtain information on such matters as access to parks and open spaces, schools and shops, population density, social standing of the neighbourhood and typical journey to work times" (U.N., 1975). The greater responsiveness of housing prices to such items as compared to structural factors is strong evidence of their importance.

Items reflecting some of the above concerns have, for example, been included in the Norwegian Social Survey 1977 report. It included information on:

a) distance to schools
b) travelling time to doctor, dentist and druggist
c) travelling time to grocery store
d) access to outdoor space
e) households bothered by noise and traffic
f) persons bothered or not by polluted air

The foregoing are, however, basically objective factors.

More subjective indicators were used in the Quality of American Life study (Campbell et al., 1976). It examined assessments of and satisfaction with such items as:

a) quality of schools
b) public transportation
c) police services
d) streets and roads
e) garbage collection
f) convenience
g) housing conditions
h) neighbours
i) safety

According to Campbell et al., the major conclusions are that:

> . . . Most people, including many of those living in "sub-standard" environments, tend to be fairly content with the residential environment in which they live. The social setting, including interpersonal relations, and the type of housing (i.e., whether or not one is living in single-family housing) are salient factors influencing an individual's level of satisfaction with the community. Other important factors related to general satisfaction include the physical conditions of the residential environment, the convenience of having nearby public and private facilities and services, the size of one's dwelling, and the presence of conditions, such as spacious, quiet, and safe surroundings (Campbell et al., 1976:218).

While the range of indicators that could be included in order to evaluate the quality and adequacy of the residential environment is voluminous, it is possible to identify a number of key indicators which, if collected over time, would greatly increase our understanding of this major area of concern. A factor analysis of data collected in a survey of moving behaviour and residential choice conducted by the National Opinion Research Centre of Chicago suggests four factors of concern (Butler et al.:19). They are:

a) satisfaction with the quality of the neighbourhood;
b) satisfaction with accessibility of the home to specific activities;
c) satisfaction with the interior of the household's dwelling unit; and
d) satisfaction with public services and facilities.

These factors relate closely to those items identified by Campbell et al.

Most of the material treated here should be viewed as supplemental to existing practice, as evidenced in the Survey of Housing Units, which is preoccupied with descriptive and financial detail.

SUB-CONCERN: ACCESSIBILITY

Objective Indicator: Reported accessibility to work and to major public facilities and services

This indicator relates to the time-distance factor involved in getting to:

a) Work
b) Schools
c) Library services
d) Medical facilities
e) Recreation facilities and services
f) Shopping facilities

As indicated above, objective data on such items has been included in the Norwegian Social Survey 1977.

Objective Indicator: Mode of travel to work and to major public facilities and services

This indicator would indicate the modal split used (walk, own car, public transit or other mode) to travel to work and services outlined above.

a) Work
b) Schools
c) Library services
d) Medical facilities
e) Recreation facilities and services
f) Shopping facilities

Subjective Indicator: Satisfaction with accessibility

This indicator is designed simply to capture actual satisfaction with time-distance to various facilities. Butler et al. found that a question on overall satisfaction failed to align itself clearly with any factor in their analysis; however, satisfaction with access to individual facilities and services loaded highly on their second factor measuring residential satisfaction, which accounted for approximately 15 percent of the total variance in residential environment satisfaction. These findings suggest that an overall satisfaction question in this

area would have limited value. This is not unexpected; location choice often involves the tradeoff of a number of access opportunities, with the result that things may be deemed not too bad overall as the result of both some strong satisfactions and some dissatisfactions.

SUB-CONCERN: DWELLING UNIT

A number of factors enter into objective and subjective evaluations of the dwelling unit. Predominant among these is tenure, due to the significant influence this factor exercises on evaluations of housing (Pfaff, 1976:195). Additionally, housing type and number of rooms are highly significant evaluative factors.

Typically the major objective housing factors are collected as part of the household information of the respondent. Consequently the major concerns should be with obtaining subjective evaluations of those factors.

Subjective Indicator: Satisfaction with dwelling unit

In addition to data on the interior characteristics of dwellings, information is needed on the level of satisfaction with these characteristics. Butler et al. found that their factor related to dwelling interior accounted for approximately 15 to 20 percent of the total variance in residential satisfaction. The items loading on this factor primarily reflected interior space, particularly number of rooms and number of bedrooms but also including size of rooms, storage space, arrangement of rooms and number of bathrooms.

SUB-CONCERN: COMMUNITY SERVICES

This concern related to the quality of local services provided by government, including such items as:

a) Schools
b) Library services
c) Medical facilities
d) Recreation facilities and services
e) Solid waste collection and disposal
f) Water supply
g) Crime control
h) Fire protection
i) General transportation services (air, rail, road)
j) Public transit
k) Handling citizen complaints and requests
l) Postal facilities and delivery

Subjective Indicator: Satisfaction with government services

This indicator is concerned with quality independent of access, which is covered under "Accessibility".

SUB-CONCERN: QUALITY OF NEIGHBOURHOOD

The definition of neighbourhood can range from "whatever it means to you" to "just what you can see from your front door; that is, the five or six homes nearest to yours" (Lansing et al., 1970). In the sense considered here the latter is deemed most appropriate. The concern deals with the immediate physical environment of the dwelling unit. Butler et al. (1969:22) found that "neighbourhood satisfaction tends to be consistently and strongly associated with an index of the quality of the respondent's street as obtained from interview ratings."

Objective Indicator: Evaluation of quality of neighbourhood by interviewer

Interviewers can be asked to report on the exterior appearance and the state of repair of the respondent's home and of the appearance of the street in general and other houses on it. Further, information relating to the mix of land uses, degree of traffic, noise levels, etc. can be reported by the interviewer.

Subjective Indicator: Quality of neighbourhood as perceived by respondent

Information similar to that obtained by interviewer rating in relation to other homes on the streets can be obtained from the respondents.

Subjective Indicator: Satisfaction with neighbourhood quality

This indicator is related to the estimation of satisfaction with one's neighbourhood. While it can relate to a number of dimensions such as appearance, reputation, condition of streets, amount of traffic, etc., there is evidence that an overall satisfaction or evaluation rating can be obtained. There is also, however, ample evidence to suggest that a single overall rating should be supplemented by ratings of specific aspects of the neighbourhood.

The work of Butler et al. mentioned above found that the first factor identified in examining residential satisfaction accounted for approximately half the variance. It was composed of items essentially concerned with the quality of the neighborhood. "The variables comprising this dimension of satisfaction include the density and the

exterior appearance of dwelling units, environmental conditions such as noise and congestion, and the characteristics of the people in the neighborhood" (Butler et al.:19).

BIBLIOGRAPHY: RESIDENTIAL ENVIRONMENT

1. Butler, Edgar W. et al. Moving Behavior and Residential Choice. Washington: Highway Research Board, 1969.

2. Campbell, Angus, Philip E. Converse and Willard L. Rodgers. The Quality of American Life. New York: Russell Sage Foundation, 1976.

3. Lansing, John B., Robert W. Marans and Robert B. Zehner. Planned Residential Environments. Ann Arbor: Institute for Social Research, 1970.

4. Michelson, William. Environmental Choice, Human Behavior and Residential Satisfaction. New York: Oxford University Press, 1977.

5. National League of Cities. "City Taxes and Services," in Nations Cities, August 1971, pp. 2-33.

6. Norway. Central Bureau of Statistics. Social Survey 1977. Oslo: 1977.

7. Pfaff, Anita B. "The Quality of Consumption", in Burkhard Strumple (ed.), Economic Means and Human Needs. Ann Arbor: ISR Survey Research Center, 1976.

8. Richard, Robert. Subjective Social Indicators. Chicago: National Opinion Research Centre, 1969.

9. United Nations. Towards a System of Social Demographic Statistics. New York: United Nations Department of Economic and Social Affairs, 1975.

RESIDENTIAL MOBILITY

Residential mobility is the movement of people for the purpose of establishing a new residence. The basic components of population change include residential mobility as well as fertility and mortality. Temporary movements of people (e.g., vacation or short business trips) are usually demographically irrelevant, since they have no lasting impact on area populations.

Persons who change their residence are regarded as movers, and the process is referred to as residential mobility or geographic mobility. Persons who change their permanent residence without crossing a "critical boundary"* may be called local movers. Persons who cross critical boundaries in the course of residential mobility are termed migrants, with the process being referred to as migration. Depending upon the nature of the critical boundaries crossed, further elaboration may be necessary. If the boundaries are national/societal ones, international migration is involved, with the participants being termed immigrants when they enter a country and emigrants when they leave a country. If the boundaries are intrasocietal (e.g., provincial, municipal, etc.), the process is termed internal migration, with the participants being called in-migrants when the enter an area and out-migrants when they leave one (Nam and Gustavus, 1976:151-152).

In the discussion above, distance traversed in the course of a move has been ignored. For certain purposes, however, one might wish to differentiate between short-distance or long-distance movements. Similarly, other elaborations are possible. Migrants may be classified by direction of movement, number of intermediate stops, or effective unit of migration - the individual, the family, or the household.

Depending upon the intended use of residential mobility information, either or both stock and flow data may be required. Data concerning the stock of migrants can (if no great detail is required) reasonably be obtained via census; however, flow data and more detailed stock data are much more appropriate to survey, rather than census, design.

SUB-CONCERN: LOCAL MOVEMENT

Our interest here lies in the identification of core information related to residential change in which local critical boundaries are not crossed. Since Canada is characterized by a high residential mobility, a very significant proportion of the respondents of a given survey could

---

*Normally a political boundary.

URBAN DOCUMENTATION CENTRE
RESEARCH UNIT FOR URBAN STUDIES
McMASTER UNIVERSITY
HAMILTON, ONTARIO

have experienced a recent local move. Several indicators are required, however, to tap the various aspect of local movement.

Objective Indicator: Mover/stayer identification

Examination of differences in the characteristics of movers vs. non-movers is an important aspect of local movement analysis. Our first task, then, is the separation of a survey population into "movers" and "stayers", normally by a simple filter question.

Since some degree of local movement is virtually universal over the individual's lifespan, it is necessary to determine the existence of local movement within some limited timespan - normally the last year or last 5 years.

Objective Indicator: Local movement history

Each person is characterized by a history of movement: places (addresses) where the respondent resided, dates of moves, distances of moves, etc. Those moves which are local are of concern here. Data may be collected on all classes of moves (local, internal and external migration) with the same or similar instruments; however, the data must be analyzed in terms of types of moves. The movement history will permit the development of origin/destination linkages, examination of relationships between movement history and educational and occupational histories, and identification of the residential impacts of familial/marital splitoffs and the establishment of new households. Movements may be measured either retrospectively via a cross-sectional survey or longitudinally via panel surveys. The work of Michelson (1977) indicates the high payoff from panel studies of movement. Sampling attrition and cost factors, however, operate to attentuate these payoffs over a long time frame and perhaps over long distance moves.

Subjective Indicator: Reason(s) for local move(s)

This indicator may be applied to either recent local moves or to all moves recorded on the movement history. Expressed reasons for movement will provide linkages to other areas of social concern. The kinds of reasons expressed in one study are illustrated in Table II-3.

In addition to the reason/rationale for the move, it may also be relevant to collect reasons for the choice of destination and the timing of the move.

Table II-3

REASONS FOR MOVE, BY TYPE OF MOBILITY, FOR MALE MOVERS 18 TO 64 YEARS OLD: UNITED STATES, MARCH 1963 (PERCENT DISTRIBUTION)

Reasons for move	Intracountry movers*	Migrants**
All reasons	100.0	100.0
Related to job	11.6	58.1
To take a job	2.7	23.6
To look for work	1.0	9.6
Job transfer	0.4	7.3
Commuting and Armed Forces	7.5	17.6
Easier commuting	6.7	6.7
Enter or leave Armed Forces	0.8	10.9
Not related to job	88.4	41.9
Housing	60.4	11.3
Better housing	55.3	10.7
Forced move	5.0	0.6
Family status	19.1	16.3
Change in marital status	11.0	4.0
Join in move with family	8.1	12.2
Other	9.0	14.3
Health	1.1	2.8
All other reasons	7.9	11.5

*Local move.

**Internal migration.

Source: U.S. Bureau of the Census, "Reasons for Moving: March 1962 to March 1963", Current Population Reports, Series P-20, No. 154, p. 4.

Subjective Indicator: Future local movement intention

Although there is no immutable law requiring all moves to be anticipated and rationally evaluated in advance of the actual movement, movement is normally preceded by some advance awareness and formation of intent. Respondents can be asked whether local movements are planned, at what probable date(s), for what probable destination(s), for what reasons.

SUB-CONCERN: INTERNAL MIGRATION

Residential mobility crossing critical internal boundaries (municipal, provincial, or territorial) may be represented by indicators closely paralleling those of local movement.

Objective Indicator: Migrant/non-migrant identification

It is important to have an indicator which quickly differentiates between migrants and non-migrants. Filter questions such as "Have you moved across municipal or provincial boundaries in the past X years?" are commonly employed.

Objective Indicator: Migration history

The same movement history instrument employed with the local movement history indicator can be utilized to realize migration history. Dates, origins and destinations of migration crossing critical internal boundaries may be recorded either retrospectively with a cross-sectional sample or longitudinally with a panel sample.

Subjective Indicator: Reason(s) for migrating

This indicator is equally appropriate for application to either identified migrants or to the entire history of migratory moves. Reasons for migration may parallel those of local movement. Table II-3 reports reasons for moves of migrants as well as local movers for a U.S. population.

Subjective Indicator: Future (internal) migration intention

This indicator is virtually identical with the local movement intention indicator. Future intended moves which would involve the crossing of critical internal boundaries can be examined in terms of reasons and probable date(s) and destination(s).

SUB-CONCERN: INTERNATIONAL MIGRATION

National population figures are unaffected by local movement or internal migration. International migration, on the other hand, is a major aspect of the population equation. Since international migration is subject to extensive legal and political regulation, immigration indicators are potentially quite controversial and give rise to the possibility of negative impact upon data quantity and quality.

Objective Indicator: Immigration/citizenship status

This indicator allocates respondents to various citizenship and immigration categories, which distinguish between citizens, landed immigrants, residents on visas, and (possibly) illegal immigrants. Sub-category elaboration may also be necessary; e.g., to distinguish between landed immigrants eligible for citizenship and those not yet eligible. Two major functions are served by this indicator: first, it provides useful information in its own right; second, it serves as a filter question for other international migration indicators.

Objective Indicator: International migration history

While this indicator is similar in principle to the previous two movement history indicators, use of an identical instrument may not be appropriate. Ideally, a separate instrument would be employed on the basis of immigration/citizenship status as a filter indicator. Data required for the international migration history indicator would include the period of entry into Canada, source country or countries, initial immigration status, and dates and nature of subsequent changes in immigration status. Current citizenship status would also be ascertained using more elaborate and refined categories than utilized in the simpler filter questions.

Subjective Indicator: Reasons for immigration

Since emigrants from Canada are not normally accessible to Canadian household-based surveys, this indicator would be restricted to respondents of non-Canadian origin. Reasons for the move to Canada and for subsequent changes in citizenship status would be ascertained.

Subjective Indicator: Future (international) migration intention

Since native born or other citizens may elect to leave the country, this indicator may be utilized with general unfiltered samples, although response frequencies may be quite low. The indicator is concerned with the capture of plans or intentions to leave Canada permanently; dates, destination and reasons for the anticipated move(s) should be elicited.

BIBLIOGRAPHY: RESIDENTIAL MOBILITY

1. Michelson, William. Environmental Choice, Human Behavior, and Residential Satisfaction. New York: Oxford University Press, 1977.

2. Nam, Charles and Susan O. Gustavus. "The Dynamics of Demographic Change", Population. Boston: Houghton Mifflin Co., 1976.

3. U.S. Bureau of the Census. "Reasons for Moving: March 1962 to March 1963," Current Population Reports, Series P-20, 154.

POLITICS

Political indicators are beginning to receive the serious attention of social scientists. Indeed, political matters deserve much attention in these times of significant challenges to the operation of our political institutions.

Few political indicators have found their way into major national social reports. The one notable exception to this is the rather extensive treatment of "political measures" found in the 1976 Social and Cultural Report of the Netherlands (Social and Cultural Planning Office, 1977:157-85, 223-51).

This area of concern is presented as an area for development. As there are few political measures being used officially in this country, only some of the more important concerns are introduced. Beyond an interest in the health of the political system, "political" indicators are appropriate to broader assessment of the state of society. Clearly, the increasing realization of, and attention to, the social significance of non-government organizations, of corporations and unions, is such that they too may be viewed in a general political perspective. Indeed, the so-called "crisis of legitimacy" facing all major institutions in Western society must heighten our concern for a broader assessment of political life in this country.

On the development of political indicators, Peter Henriot points to the two fundamental political topics of current social inquiry: public support for governmental institutions and the qualitative character of these institutions (Henriot, 1972:14). By no means are indicators of support distinct from indicators of quality; the latter, however, are more obviously subjective in nature and focus primarily on measure of satisfaction.

The assessment of both these topics must take place against a background of certain democratic ideals with respect to the functioning of government and the roles played in the political process by elected officials, bureaucrats, special interests and the general population. In the ideology of the democratic system, the equality of citizens occupies a central position and equal opportunity for exerting influence is of essential significance (Social and Cultural Planning Office, 1977: 158).

It is important that our measurement of political concerns reveal the different situations and satisfactions that may exist for different levels in our political system. Distinctions between national, provincial and local political systems are far more important than distinctions between regions or provinces.

Objective Indicator: Participation in political affairs

Participation in political affairs should be liberally interpreted as "involvement in the physical or action sense." Participation, like political orientation, is a measure of support of political institutions and processes, but of a more direct kind.

Statistics on participation are the kind of political measures that have most often found a home in the social indicator literature. Even the OECD document Measuring Social Well-Being hints at the need for indicators on this subject in their expression of a concern for "opportunities for participation in institutions and decision-making" (OECD, 1976:136).

Measures of political participation must go well beyond a reporting on who votes. Attempts at influence, attendance at political meetings, memberships in political parties, involvement in campaigning, financial contributions, office seeking and other forms of both formal and informal involvement should be included. The allocation of time in participation is also of interest.

Subjective Indicator: Interest in political affairs

Interest in political affairs may itself be regarded as a measure of participation. Interest is indicated by the amount and kind of attention a person pays to the subject. It refers to involvement that is not directly related to or interpreted as political action.

> We may assume that if people follow political and governmental affairs, they are in some sense involved in the process by which decisions are made. . . . Following governmental and political affairs and paying attention to politics are limited civic commitments indeed, and yet there would be no civic culture without them (Almond and Verba, 1963:88).

Interest in political affairs may manifest itself in reading, through attention to media, through discussing or even thinking about politics. Time spent in these ways is an important measure of this kind of involvement. While indicators of interest may lack the preciseness of other indicators of support, they may reveal such factors as the relative importance of various sources of information (Social and Cultural Planning Office, 1977:166-67).

Subjective Indicator: Political orientation

Political orientation refers to how people orient themselves to political institutions, processes, and events. It is an attitudinal measure of public support of political institutions, and while

indicators of satisfaction or alienation with politics are clearly components of attitude, these qualitative measures are considered separately.

> By orientation we mean those interpretations of the political environment that ordinary voters make either regularly, as they participate in the duties of citizenship, or more usually, when they are called upon to overtly evaluate their political setting (Schwartz, 1974:170).

The concept of political orientation essentially refers to "political" ideology. In general, we are interested in measures of "progressivism" and "conservatism" in the broad sense and not with partisan preferences (Social and Cultural Planning Office, 1970). While some of the political science literature has questioned the existence of well-developed orientations (Key, 1966; Campbell et al., 1960), the purpose of such an inquiry is "primarily not to search out deep political beliefs, but simply to indicate general ideological orientations at the mass level" (Schwartz, 1974:167).

The concept of political orientation may be subject to some problems of definition, as it is wrapped up with other concepts such as values and culture (see Schwartz, 1974:170-73). Indeed, in terms of political culture, orientations probably involve "attitudes towards the political system and its various parts, and attitudes towards the role of self in the system" (Almond and Verba, 1963:13). However:

> The importance of such orientations lies in their ability to help the citizen make sense of his world, to guide him in interpreting the actions of others and in selecting appropriate responses himself. He has, in other words, the basis of a rationale for functioning as a political being (Schwartz, 1974:169).

Various aspects of political orientation overlap into economic, judicial, social and even religious orientations. Libertarian attitudes, for instance, are a matter of interest with respect to each of these concerns (see Manzer, 1974:281-98).

Knowledge about the political values of the population is of broad interest, for they are very revealing of underlying currents in society. While changes such as the so-called "shift to the right" have been perceived, our understanding of whether this trend is manifested through all value orientations is not yet very great.

Subjective Indicator: Political efficacy

The concept of political efficacy is a fairly common one in the political science literature. It is a measure of satisfaction with

politics, focusing on powerlessness, alienation and isolation. Political efficacy:

> . . . refers to the person's belief that political and social change can be affected or retarded and that his efforts, alone or in concert with others, can produce desired behavior on the part of political authorities. Efficacy has its origins in social psychology and is closely related to "ego strength," "subjective competence," "self-confidence," and "personal effectiveness." The concept has particular relevance for assessing behavior in democratic systems, where a premium is placed on citizen participation and where there are accessible channels for expressing political needs (Prewitt, 1968:225, in Schwartz, 1974:223).

Efficacy is also regarded as a measure of an individual's sense of equality of political opportunity and equality in relations between government and voter. Good examples of the statistical treatment of this indicator can be found in Schwartz, Manzer, Simeon and Elkins, and in the Dutch Social and Cultural Report 1976. The Dutch report is especially interesting in its presentation of statistics on desired and credited influence and on the possibilities of influence in public policy (Social and Cultural Planning Office, 1977:163-65).

Subjective Indicator: Political trust

The measurement of political trust, or its antithesis, political cynicism, can be seen as a way of conceptualizing the legitimacy of the components of the political system. The degree of trust an individual has in the political system reflects perceptions of the moral right of public officials to exercise their authority. Trust must be seen as an essential ingredient of cooperative social interaction. Without it our political and social system would have to operate in a coercive fashion, and the use of coercion is a measure of stress within the system if not of serious breakdown. Trust also relates to normlessness as a form of alienation.

Most of the literature relies on opinions or statements reflecting trust as a way of measuring the concept. Trust should be indicated at a general level, across a wide variety of performance judgements, as well as in regard to specific policy areas or institutions (Converse, 1972:146).

Subjective Indicator: Satisfaction with political life

The measurement of political life here is seen as a general measure of the overall quality of the political system as opposed to trust or efficacy which have their basis in ideological concepts of democracy.

The concern is to measure satisfaction with political life at the community, provincial and national levels, with the quality of bureaucratic encounters, with the type of political system, and with its outputs.

There are a number of other social indicators which might be considered for this area of concern. They include measures of political knowledge and awareness as well as perceptual measures of political orientation (opinion), and participation and interest (relative degree). This section, however, has only attempted to highlight some of the issues and concerns that political indicators can address. While some work must be carried out in order to properly introduce political indicators to our system of social statistics, such an effort can be justified because of the fundamental importance of this concern.

BIBLIOGRAPHY: POLITICS

1. Almond, Gabriel and Sidney Verba. The Civic Culture. Princeton: Princeton University Press, 1963.

2. Campbell, Angus, Philip E. Converse, Warren E. Miller, and Donald E. Stokes. The American Voter. New York: John Wiley & Sons, 1960.

3. Converse, Philip E. "Alienation from Public Institutions and Processes", in Burkhard Strumpel (ed.) Subjective Elements of Well-Being, papers presented at a Seminar of the Organisation for Economic Co-operation and Development, Paris, May 15-17, 1972. Paris: OECD, 1972.

4. Henriot, Peter J. Social Science Frontiers 4: Political Aspects of Social Indicators: Implications for Research. New York: Russell Sage Foundation, 1972.

5. Key, V.O., Jr. The Responsible Electorate. Cambridge: The Belknop Press of Harvard University Press, 1966.

6. Manzer, Ronald. Canada: A Socio-Political Report. Toronto: McGraw-Hill Ryerson Limited, 1974.

7. Organisation for Economic Co-operation and Development. Measuring Social Well-Being. Paris: OECD, 1976.

8. Prewitt, Kenneth. "Political Efficacy", International Encyclopedia of the Social Sciences, Vol. 12. New York: The Free Press, 1968.

9. Rokeach, Milton. The Nature of Human Values. New York: Free Press, 1973.

10. Schwartz, Mildred A. Politics and Territory. Montreal and London: McGill-Queen's University Press, 1974.

11. Simeon, Richard and David J. Elkins. "Regional Political Cultures", Canadian Journal of Political Science, VII (3), 1974, pp. 397-437.

12. Social and Cultural Planning Office. Enquiry on Progressivism and Conservatism. The Hague: Government of the Netherlands, 1970.

13. Social and Cultural Planning Office. Social and Cultural Report 1976. The Hague: Government of the Netherlands, 1977.

RELIGION

Information on religious beliefs and values is part of a more general concern for changing cultural values. The focus of the main social interest in religion should be on the "changing orientation of philosophy of life" (Social and Cultural Planning Office, 1977:349) as well as with the quality of religious life.

Religion has not normally been an area for social indicator development. Part of the reason lies with the long standing tradition of the separation of church and state and with the deeply private nature of the individual's religious beliefs.

Like government, our interest in religion has more to do with the changing significance and role of the institution in society than with changes in the organization of religious institutions. In attempting to gauge the significance of religion, measures of both "support" and "quality" deserve the most attention.

From the point of view of a social concern, the concept of religion should be broadly defined. Religious beliefs and values are not necessarily theistic in nature since both secularism and spiritualism fall under religion as it is being used here. Concern here is with those beliefs and values which constitute an individual's concept of self and his relationship to the world and universe and with the extent to which they serve as a relevant and powerful force in society.

A strong social interest in religion has not been manifest in the social indicator literature. The personal nature of the subject is one reason, as mentioned above, but the other is that valid and reliable measures of religious belief have been both difficult to find, let alone interpret. Despite some methodological problems, this area of concern should be developed. Given the current absence of religious indicators, some effort should be put into breaking new ground. This section highlights only some of the major religious indicators.

Objective Indicator: Participation in religion

Measures of religious participation reflect support for religious institutions and beliefs. Church membership as a general measure of religiosity leaves much to be desired and, since census data on religious denomination is available in any case, not a great deal of importance need be attached to this measure. Of greater concern is church attendance or involvement in other religious events, alone (meditation) or in the company of others. Time spent engaged in religious activity may be an excellent measure of participation and one broader than church attendance. Finally, financial contributions to church or religious organizations is another measure of participation.

Subjective Indicator: Interest in religion

Interest in religion, like interest in politics, is an attempt to measure the informal aspects of participation and involvement. Interest in religion may manifest itself in attention to certain types of reading material or media programs, discussions on religion or religious subjects, or even thinking about religious matters (Social and Cultural Planning Office, 1977:251-52).

Subjective Indicator: Religious orientation

Following the model outlined in the section on politics, religious orientation refers to one's school of thought or religious ideology. Major ideological distinctions should be measured rather than fine differences (e.g., as between Baptists and Anglicans). Indeed, views on particular religious matters may be interesting in themselves as well as reflecting deeper religious values.

Under the heading of orientation, some attempt must be made to determine the role that religion plays in providing the individual a guide for action and understanding. The strength of one's religious views may be reflected in what a person does as well as serving as a "coping resource".

Religious orientation must reveal spiritual as well as secular trends over time. Values categorized as traditional or liberal may be of religious significance as well as of political or economic significance (e.g., tolerance and religious freedom).

Subjective Indicator: Satisfaction with religion

The quality of religious life can be measured by indicators of personal staisfaction. The key words that distinguish this indicator from religious orientation are happiness, goodness and importance. Our interest is with overall measures of satisfaction with both institutional and value components of religion.

BIBLIOGRAPHY: RELIGION

1. Campbell, Angus, Philip E. Converse and Willard L. Rogers. The Quality of American Life. New York: Russell Sage Foundation, 1976.

2. Demerath III, N.J. "Trends and Anti-Trends in Religious Change", in E.B. Sheldon and Wilbert E. Moore (eds.), Indicators of Social Change. New York: Russell Sage Foundation, 1968.

3. Social and Cultural Planning Office. Social and Cultural Report 1976. The Hague: Government of the Netherlands, 1977.

JUSTICE

The concern "justice" is defined here as having to do with the laws of the land and the institutions which exist for the interpretation and enforcement of those laws - the police, the courts and the prison system. The most common indicators falling under the umbrella of "justice" are administrative statistics on crime and the operations of the criminal and civil courts. The only area of inquiry at present involving survey data has to do with victimization.

Aside from the aforementioned work already being done, this area does not represent a major field for indicator work. There are, however, some areas of interest which have not been addressed by social indicators. Primarily they focus on involvement with, and attitudes about, the criminal and civil justice system. These matters have received little discussion in the literature on social statistics with the exception of brief mention in regard to measures of satisfaction.

Issues bearing on law and the administration of the justice system involve such major social issues as security, equality and liberty. Present sources of data provide some enlightenment on the first of these issues, but to a much lesser extent on the other two. Following an essentially political perspective on "justice", this section will present a series of indicators which it is hoped will be seen as some avenues of development for judicial indicators.

Objective Indicator: Participation in the justice system

Very little is known about the nature and extent of contacts between individuals and the judicial system. Exposure to the various parts of this system is an important variable in assessment of an individual's attitudes toward the system or understanding of it. The indicator participation should attempt to measure formal personal contacts with the police or courts as a victim or chargee, plaintiff or defendant, witness or juror; or with the penal system as a prisoner. Informal contacts with the system should also be measured. These would include any direct contact with the system as an interested citizen. Questions such as, Have you ever attended a trial or visited a prison? might be relevant. The indicator, then, must be an assessment of the individual's "first hand" exposure to the judicial system. Contacts as a result of minor traffic violations should not be assessed.

Subjective Indicator: Judicial orientation

While not a wholly appropriate term, measures of "judicial orientation" are intended to complement the measures of ideological orientation included in the areas of politics and religion. This indicator should

Subjective Indicator: Interest in religion

Interest in religion, like interest in politics, is an attempt to measure the informal aspects of participation and involvement. Interest in religion may manifest itself in attention to certain types of reading material or media programs, discussions on religion or religious subjects, or even thinking about religious matters (Social and Cultural Planning Office, 1977:251-52).

Subjective Indicator: Religious orientation

Following the model outlined in the section on politics, religious orientation refers to one's school of thought or religious ideology. Major ideological distinctions should be measured rather than fine differences (e.g., as between Baptists and Anglicans). Indeed, views on particular religious matters may be interesting in themselves as well as reflecting deeper religious values.

Under the heading of orientation, some attempt must be made to determine the role that religion plays in providing the individual a guide for action and understanding. The strength of one's religious views may be reflected in what a person does as well as serving as a "coping resource".

Religious orientation must reveal spiritual as well as secular trends over time. Values categorized as traditional or liberal may be of religious significance as well as of political or economic significance (e.g., tolerance and religious freedom).

Subjective Indicator: Satisfaction with religion

The quality of religious life can be measured by indicators of personal staisfaction. The key words that distinguish this indicator from religious orientation are happiness, goodness and importance. Our interest is with overall measures of satisfaction with both institutional and value components of religion.

BIBLIOGRAPHY: RELIGION

1. Campbell, Angus, Philip E. Converse and Willard L. Rogers. The Quality of American Life. New York: Russell Sage Foundation, 1976.

2. Demerath III, N.J. "Trends and Anti-Trends in Religious Change", in E.B. Sheldon and Wilbert E. Moore (eds.), Indicators of Social Change. New York: Russell Sage Foundation, 1968.

3. Social and Cultural Planning Office. Social and Cultural Report 1976. The Hague: Government of the Netherlands, 1977.

JUSTICE

The concern "justice" is defined here as having to do with the laws of the land and the institutions which exist for the interpretation and enforcement of those laws - the police, the courts and the prison system. The most common indicators falling under the umbrella of "justice" are administrative statistics on crime and the operations of the criminal and civil courts. The only area of inquiry at present involving survey data has to do with victimization.

Aside from the aforementioned work already being done, this area does not represent a major field for indicator work. There are, however, some areas of interest which have not been addressed by social indicators. Primarily they focus on involvement with, and attitudes about, the criminal and civil justice system. These matters have received little discussion in the literature on social statistics with the exception of brief mention in regard to measures of satisfaction.

Issues bearing on law and the administration of the justice system involve such major social issues as security, equality and liberty. Present sources of data provide some enlightenment on the first of these issues, but to a much lesser extent on the other two. Following an essentially political perspective on "justice", this section will present a series of indicators which it is hoped will be seen as some avenues of development for judicial indicators.

Objective Indicator: Participation in the justice system

Very little is known about the nature and extent of contacts between individuals and the judicial system. Exposure to the various parts of this system is an important variable in assessment of an individual's attitudes toward the system or understanding of it. The indicator participation should attempt to measure formal personal contacts with the police or courts as a victim or chargee, plaintiff or defendant, witness or juror; or with the penal system as a prisoner. Informal contacts with the system should also be measured. These would include any direct contact with the system as an interested citizen. Questions such as, Have you ever attended a trial or visited a prison? might be relevant. The indicator, then, must be an assessment of the individual's "first hand" exposure to the judicial system. Contacts as a result of minor traffic violations should not be assessed.

Subjective Indicator: Judicial orientation

While not a wholly appropriate term, measures of "judicial orientation" are intended to complement the measures of ideological orientation included in the areas of politics and religion. This indicator should

seek to provide some information on individual values and beliefs about the operation of the justice system and its role in respect to criminal and civil matters, the protection of freedoms and rights and the treatment of criminals.

Subjective Indicator: Attitudes towards the judicial system

This indicator should reveal an individual's evaluations and judgements of the judicial system focusing on general issues such as trust in the system, fairness and equality of treatment and the appropriateness of various aspects of legal process. The OECD Working Group on Social Indicators has identified a concern about the appropriateness of a legal solution to various problems (e.g., consumer and constitutional matters, or ethical and moral issues) which might be addressed under the heading of attitudes towards the system. It is under this indicator also, that views about the punitive or rehabilitative purposes of the judicial system should be determined.

Subjective Indicator: Satisfaction with the judicial system

Measures of satisfaction are suggested here only as general indicators of the quality of the system as perceived by citizens.

BIBLIOGRAPHY: JUSTICE

1. Manzer, Robert. Canada: A Social-Political Report. Toronto: McGraw-Hill Ryerson Limited, 1974.

2. Organisation for Economic Co-operation and Development. Measuring Social Well-Being. Paris: OECD, 1976.

3. Rokeach, Milton. The Nature of Human Values. New York: Free Press, 1973.

PART III

DESIGN, TIMING, AND INSTRUMENTATION

This section of the "blueprint" is concerned with the delineation of general design and timing criteria appropriate for the indicators discussed earlier. The indicators will be classified according to these criteria, making possible subgrouping of indicators according to similarity in methodological requirements and timing needs. Such a classification should assist materially in the ultimate scheduling of data collection for core social indicators.

CONSIDERATIONS OF DESIGN

All of the indicators discussed in this blueprint have been selected in keeping with the general criterion that they be compatible with data collection via household surveys. The fact that some of the indicators are also compatible with census data - past, present, and, it is hoped, future - is an added consideration, providing some degree of linkage between sample and population studies.

Discussed in this paper are four major design parameters which will determine the type of household-based survey appropriate to each indicator. Other relevant parameters - such as method of actual data collection (mailed questionnaire, personal interview, etc.) - have not been discussed since such specific design questions are more appropriately the task of collection agencies. The four major parameters include: units of data collection and analysis, sampling, survey type, and instrument considerations. Each of these parameters is discussed briefly below.

UNITS OF DATA COLLECTION AND ANALYSIS

Three different units may be studied by household surveys, with a given indicator being appropriate to one and sometimes more of these units. The individual may be the focus of attention; this is the case with many, if not most, attitudinal indicators, for example. The family may be the unit concerned; the blueprint deals with many indicators which focus upon the family. Alternatively, the household may be the unit with which a given indicator is concerned. While there is no problem collecting information at any of the three levels via household surveys, problems can arise if indicators referring to different units are indiscriminantly mixed. Hence, each indicator is classified by the unit or units to which it refers.

SAMPLING

The universe envisioned for the indicators discussed in this blueprint will vary with the units under consideration. The universe may be all households or all families in Canada or all individuals who meet certain criteria.* Many of the indicators should be collected using a general representative sample of the universe, employing standard sampling procedures. Other indicators, however, may require a more specialized population of respondents; it may be possible to select these respondents from a general sample via filter questions. Otherwise, it may be necessary to utilize a targeted sample which is not statistically representative of the Canadian universe, but substantially over and/or under samples selected of sub-populations within the universe. In the final section of this blueprint we note whether a general or targeted sample is more appropriate for each indicator.

Sampling criteria and sizes should permit adequate representation of variation in individual life cycle stages for family or household composition, depending upon the unit of analysis. In a critique of Perspective Canada, Fienberg (1975) listed a set of changes and improvements which should take place if Perspective Canada is to serve as a vehicle for the establishment of an ongoing federal social indicators enterprise in Canada. Of particular concern is Fienberg's recommendation of

> The adoption of one or perhaps multiple frameworks based on theories of social structure, such as the family life-cycle, via which we can study changes in the social fabric (Fienberg, 1975:158).

It is becoming increasingly apparent that such variables as life cycle stages are important determinants of numerous aspects of personal, social, and economic life. Rogers and Converse (1975), for example, found life cycle stage to be a very influential determinant of perceived quality of life. Numerous other examples of the utility of the life cycle variable could be cited to indicate the impact on perceptions and behaviour of the individual.

Similarly, at the family and household level changes in composition are highly important determinants of many other variables. A main panel study of family income dynamics in the United States concludes that ". . . overall changes in family well-being are dominated by changes in family composition and by some unchangeable background factors like education and race" (Morgan et al., 1974:50).

---

*Perhaps the same criteria for age and other respondent characteristics employed in the labour force survey.

Given the fundamental importance of such variables as stage in life cycle of the individual and family composition, it seems reasonable to argue that these variables should become major sampling parameters - examined as closely as sex or region.

Before leaving the topic of sampling, it is important to note that some indicators require sampling from a temporal universe as well as a respondent universe. Indicators using time allocation measures are examples of this. For such indicators, it is important that temporal representatives be in terms of days, weeks, seasons or other temporal units.

SURVEY TYPE

It is intended to examine each indicator in terms of the type of survey to which it is appropriate. Three types of survey are considered in this classification: "appendage", cross-sectional, and longitudinal forms. By an appendage survey, is meant that the indicator requires a general sample and is sufficiently uncomplicated so that it may be conveniently appended to an existing on-going survey effort the labour force survey, for example. If an indicator is not appended to an existing survey, then one or more new surveys are required. The terms cross-sectional and longitudinal surveys carry their usual meanings of "one shot" or repeated measurements on a given sample. Although all indicators are seen as generating time-series data, it is not necessary that all indicators have the series generated by panel data. For some indicators, however, panel surveys seem to be the most reasonable method of examining processes of change. It is proposed to classify each indicator as to the survey form or forms which seem likely to generate the most useful social information.

INSTRUMENT CONSIDERATIONS

It is not possible to specify instrumentation precisely until the social statistics desired from each indicator have been defined and other design considerations finalized; nevertheless, it is possible to indicate likely instrument needs associated with each indicator. Consequently, it is proposed to examine each indicator to determine whether special instruments may be required. If nothing is required beyond the usual questionnaire and interview forms and checklists, then no special instruments are seen as necessary. If, on the other hand, non-usual instruments are required an attempt will be made to specify the likely nature of the required instrument; e.g., a time diary.

CONSIDERATIONS OF TIMING

There are four fundamental aspects of timing of indicator capture which are of concern to us: frequency, sequence, temporal compatibility, and seasonality. By frequency is meant how often a given item of information should be collected; by sequence, the order in which the collection of various items of information is phased. Temporal compatibility is an aspect of sequence of special interest: Which items of information should be collected simultaneously?; alternatively, Which items are mutually exclusive in terms of a given survey? Seasonality refers to the sensitivity of the indicator to regular temporal variation.

Frequency is determined by considerations relevant to individual indicators; sequence and temporal co-occurrence are determined by additional considerations of relationship among multiple indicators. Each of these aspects of timing will be discussed in more detail below.

FREQUENCY

The optimum frequency of capture of a given indicator is primarily a function of the stability of that indicator. Both the rate and pattern of change of the indicator affect stability. The more stable the indicator, the less frequently the indicator need be captured. If the rate of change is regular and the pattern of fluctuation or direction of change regular (e.g., linear or cyclical), trend lines can be projected to give a reasonable estimate of the indicator without the necessity of frequent measurement. At the other extreme, highly unstable indicators may require measurement at a rapid frequency impossible in a national survey design; hence, such indicators should not be incorporated into the blueprint.

In addition to considerations of indicator stability, capture frequency will be influenced by design considerations such as instrumentation length and data acquisition costs. Indicators requiring lengthy and expensive collection procedures (for example, time diaries) will be captured less frequently than indicators with lower acquisition costs, ceteris paribus.

To the extent that core social indicators are considered policy relevant, priority areas of social concern may be measured more frequently than areas of less concern. The timing of policy-oriented measurement has some parallels with lags in effect in monetary policy. Three major elements in monetary policy adjustments have been distinguished: the inside lag, the intermediate lag, and the outside lag (Johnson and Winder, 1962). The inside lag is the lapse between the time that action is needed and the time it is actually taken. The inside lag is decomposed into two subdivisions: the recognition lag

between the time that action is actually needed and the time that it is recognized as needed by the monetary authorities, and the administrative lag between the time the need for action is recognized by the authorities and the time they actually take action. The intermediate and outside lags refer to lapses between the taking of action and the final desired effects. The length of time determined by aggregating the lags varies considerably across monetary policy areas.

The essential point to be drawn from the preceding discussion is that frequency of capture should bear some relation to the various lags associated with a particular policy area. The collection of data on a monthly cycle with policy lags accumulating to 3 or 4 years is often a wasteful enterprise.

Since all the constituent indicators within this blueprint are intended to generate time-series data, a ten-year interval between measurements is the largest interval envisioned. The shortest interval is that dictated by the minimum practical lead times for survey operations. One month periodicity is currently utilized with the labour force survey and probably represents an absolute minimum. Annual periodicity is probably a more reasonable minimum for national surveys of a more general nature.

Each core indicator can be assigned to one of four capture frequency classes:

Class	Capture Frequency
1	Annually (A)
2	Biennially (B)
3	Quinquennially (C)
4	Variably; irregularly (D)

Classes 1 through 3 are regular frequency groupings. Many, if not most, indicators should be captured with a standard frequency. The fourth class is provided in recognition of the fact that irregularity in data collection may be necessary for some indicators.

SEQUENCE

The order or sequence of capture of the core indicators is a further aspect of timing. Since all indicators cannot be captured in a single survey, some must precede others in the data collection process. There is a variety of criteria which might be involved in determining measurement order. Policy relevance might be evoked: indicators bearing on pressing social problems which demand policy action should be measured first and less policy relevant indicators later. Similarly, indicators defined as important by several federal departments should probably have

sequence priority over those defined as important by only one consumer agency. A second consideration is related to the question of frequency; indicators with low capture class numbers should be measured very early; those with higher numbers may be measured somewhat later.

A third factor is the generality of the indicator or the survey itself. As a rule of thumb, general indicators should precede more specific ones; indicators required to build, define, or otherwise clarify other indicators should be captured first. In a similar vein, general sample surveys should precede targeted sample studies. With regard to these points, some indicators are essentially elaborations of census information and should be timed to follow analysis of the relevant census data.

TEMPORAL COMPATIBILITY

Some indicators should be measured together. For example, a particular model may demand multiple indicators, representing data collected on a given population at a given time. Alternatively, a given instrument may generate multiple indicators (e.g., a time diary or life history instrument). Many indicators may be complementary in nature; knowing both X and Y is much more than twice as valuable as knowing only one of them.

However, some indicators may be mutually exclusive - at least if high quality data are desired. The existence of positive and negative halo effects in surveys is well known; for example, we could predict radically different responses to a capital punishment attitude, depending upon whether other items associated with it concerned criminal justice, law and order, or political conservatism.

Thus, the time of collection of different indicators should be coordinated so as to provide as much simultaneous data collection as required while minimizing distortion due to indicator incompatibility.

SEASONALITY OF THE INDICATOR

Timing may be affected by seasonality of indicators. Those indicators (and there are many) strongly affected by time of year (or day of week) of measurement must either be captured at constant times or else seasonally adjusted. Small sample sizes and unknown seasonal variation may render seasonal adjustment a difficult task - at least in early stages of indicator development.

OTHER CONSIDERATIONS OF TIMING

TEMPO OF WORK

For a variety of administrative reasons, the scheduling of work for the core indicator measurement and analysis should begin with a brief shake-down period with perhaps a skeleton labour force. This would be followed by a long period of relative stability with slow, if any, growth in the labour force. The budget should also permit an even work cycle over the decade covered by the blueprint. Obviously, considerations of timing, policy, etc. will intervene to distort the flow of work, but boom and bust cycles should be avoided if possible.

FLEXIBILITY

While the term "blueprint" carries a strong message of advance planning, it is important that the planning not preclude flexibility in actual operations. A complete, fixed, and invariant schedule of operations would militate against the development of a responsive, progressive, and evolving program of core social indicators. Additional indicators will need to be added; additional sub-populations will require special surveys; some social statistics will be superceded by others requiring different data. The schedule of operations should allow the addition and deletion of material, surveys, and sub-surveys without seriously distorting the flow of work.

The first years covered by the blueprint can be planned more completely than later years. It is suggested that 80 percent of the first 2 or 3 years' resources might be allocated to specific material, while at least 40-50 percent of the resources of later years should be reserved.

In final sections of this blueprint, there will be an attempt to assign to each indicator a capture class frequency, specifying an optimum data collection cycle. In addition, the existence of some sequence and compatibility constraints will be noted: which indicator should precede which other one(s) and which indicators should (or should not) be collected simultaneously. Those indicators for which serious seasonal effects should be anticipated will also be indicated. Some recommendations for the overall scheduling of the core indicator data collection will be given.

CONSIDERATIONS OF INSTRUMENTATION

A review of the indicators presented in Part II suggests that different indicators are amenable to different collection approaches. Figure

III-1 indicates the three major instrument groupings which are required to produce the data base of core social indicators. In addition to what is termed standard survey instruments (representing commonly employed questionnaires, checklists, attitude scales, etc.), two somewhat less common instrument "packages" are required: some indicators require the use of some type(s) of time budget diary while other indicators require the use of a life history matrix (which might also be called a "lifetime diary").

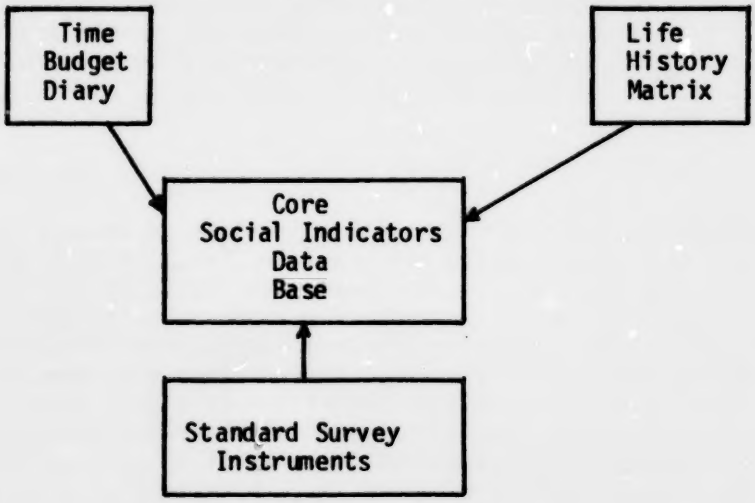


Figure III-1

MAJOR INSTRUMENT GROUPINGS

A review of the indicators in Part II suggests a clear need for time allocation data. Time allocation refers to the manner in which time available to an individual is utilized. It is best captured by means of a time diary. Basically, it has two underlying dimensions:

1. the allocation of time to activities (e.g., the amount of time spent working);

2. the allocation of activities over time (e.g., when the work is done; number of work sessions per day).

Relevant time periods for study include the following:

a) hour
b) day
c) week
d) month
e) season
f) year
g) lifetime.

TIME DIARIES

Typically, time use studies have focused primarily on hours and days, using such data to estimate weekly time allocations. Months and seasons have only infrequently been used in time allocation studies. However, for some purposes (e.g., the study of seasonally bound leisure activities), and for some locations (e.g., agricultural areas), they provide a meaningful time frame. In recognition of this, some recent studies for example, the Norwegian time budget survey (1971-72) and the U.S. study (1975-76) - were carried out over a full year. In the Norwegian study each respondent completed diaries for two or three days at approximately the same time of year, with interviewing being carried out continuously throughout the year. In the U.S. study, each respondent and spouse completed four diaries, one for each season of the year. Both of these studies thus offer the opportunity to make some observations about the allocation of time over the year.

There are a number of statistics provided by time use studies which are relevant to the construction of social indicators. These include duration, activity frequency, and temporal location (time of day, week, etc.).

Duration refers to the quantity of time devoted to specified activities. In traditional time allocation studies it refers to minutes or hours per day or week. Duration must be considered the major temporal indicator for monitoring purposes. A zero value for duration of a specific activity means nonparticipation during the period being monitored (e.g., the day), while any positive value indicates the size of the allocation to that activity.

It is the quantity of time, zero or positive, allocated to work and nonwork activities that is the major activity indicator. Concern has long been expressed about paid work time. However, there is growing recognition that the number of hours devoted to nonmarket (paid) work, to volunteer activity, to travel, to leisure and other activities may be equally important indicators of the quality of life.

As an indicator, duration can serve to quantify an endless number of items of interest. For example, the duration of

a) time spent in various activities, work, sleep, watching TV, reading, doing housework, etc.;

b) time spent in various locations, at home, at school, at the workplace, in stores, etc.;

c) time spent alone or with various persons, family, neighbours, social contacts, business contacts;

d) time exposed to stress;

e) time spent in automobiles, on public transit, walking, etc.;

f) time spent in routine, planned, or unexpected activities.

The range of factors that can be quantified in this manner is limited primarily by practical data collection considerations. The key value of duration is that it provides a meter which can be used to relate information collected in disparate ways or at different times as long as the durational dimension has been accurately captured in each case. For example, an accounting of the number of club meetings and their length and attendance has been used to estimate, for a small community, the per capita time devoted to such activities. These estimates were found to closely correspond to similar estimates obtained via time budget studies. As another example, detailed readership studies measuring the amount of time devoted to various types of reading could be used with grosser reading time estimates from time budget studies to quantify the time allocated to each type. It would not be requisite that the sets of data be obtained at the same time.

Frequency refers to the number of times a given activity occurs over a specified period of time. Examples are the number of meals eaten a day or the number of movies attended a month. It is often used as a surrogate measure of time allocation. However, it has limited value in comparing activities which are likely to differ significantly in the amount of time devoted to them. This shortcoming is reduced if appropriate weights can be attached to each occurrence on the basis of prior knowledge. This is a strong possibility if comparable time budget data and activity lists are in use. Frequency data, like data on duration, can be used to measure participation, since participants are simply those individuals with nonzero frequencies.

Temporal location refers to the time of day, week, month or year an activity is undertaken. Examples include the time of day persons depart for work or the time of day schools let out. At other levels it may refer to days of the week free from paid work, the time of month bills are paid or the time of year when vacations are scheduled.

While temporal location is a less frequently used indicator, it is in fact highly significant to the rhythm of society. Of more particular concern than the mean time of occurrence is the variation in time of activity - low variation often means little freedom in exercising a given activity (e.g., leaving for work) and thus possible system overload (e.g., traffic congestion). On the other hand, it may be important that certain events do co-occur, such as school and work vacations. Both of these aspects have been recognized in some European countries. Thus, in Germany school summer recesses vary from province to province with an attendant variation in work vacations.

Additionally, time diaries facilitate the recording of time spent alone or with others ("whom" data) which is important to the concept of socialization, and time spent in various locations ("where" data), important in the analysis of accessibility.

Table III-1 presents a listing of the social indicators related to time allocation which require time diary instrumentation.

Table III-1

INDICATORS REQUIRING TIME ALLOCATION DATA

TIME SPENT IN THE HEALTH CARE SYSTEM
TIME DEVOTED TO PERSONAL CARE ACTIVITIES
TIME SPENT CARING FOR CHILDREN
MEANS OF SOCIALIZATION
TIME SPENT IN HOUSEHOLD PRODUCTION
TIME SPENT ON HOME MAINTENANCE' REPAIRS' AND PROJECTS
ALLOCATION OF TASKS BETWEEN HUSBAND, WIFE OR OTHERS
MAINTENANCE OF KINSHIP TIES
TIME SPENT ON PROGRAMS
PARTICIPATION IN PAID WORK
DIARY RECORD OF WORK TIME
NOMINAL WORKING TIME
SEASONAL PATTERN OF WORK
TIME SPENT ON PURCHASING
TIME SPENT FREE FROM OBLIGATION
ANNUAL PATTERN OF FREE DAYS
ACTIVITY PARTICIPATION BY TYPE
NON-HOME BASED DAYS
REPORTED ACCESSIBILITY TO WORK AND MAJOR PUBLIC FACILITIES AND SERVICES
PARTICIPATION IN POLITICAL AFFAIRS
PARTICIPATION IN RELIGION
PARTICIPATION IN THE JUSTICE SYSTEM

LIFE HISTORIES

Another specialized type of instrumentation suggested by the indicators presented in Part II is the life history matrix.

Recurrent events in the lives of individuals bring about changes which impinge on their lives. Completion of formal education; moves; marriage; changes in household composition, jobs or health; and many

similar events identified in the indicators bring about dramatic social changes which can profoundly affect individual and family well-being. This fact is gaining increasing recognition. Partial testimony to its importance is the growth of work in psychophysics, which deals with the scaling of life events and lifestyle items which cause stress. For example, Holmes and Rahe have developed a social readjustment rating scale assigning stress weights to a wide range of events. Additionally, a major finding of the Michigan five thousand family, longitudinal economic panel study, has been that "change in economic status is largely the result of major events such as entry into or exit from the labor force, change in numbers of other earners, or change in family size" (Morgan et al., 1974:42).

Life events can best be captured with studies in which a number of life domains or spheres which change over time can be documented. In such studies the focus is not only on time as duration (i.e., number of hours worked) but also time as a marker (i.e., date or age of entry into the labour force) or as a counting base (number of times). Such life spheres might include the list presented in Table III-2, which are ranked in order of their occurrence in a Norwegian Life History File.

Table III-2

LIFE SPHERES RECORDED IN 36 YEAR LIFE HISTORY STUDY, NORWAY

Life sphere		Average events per person	Average duration in years of sphere status
1	Present Activity	13.8	2.6
2	Household Composition	12.9	2.8
3	Employment Occupation	10.4	3.5
4	Residence	8.8	4.1
5	Education	3.3	10.9
6	Family Status	2.0	18.0
7	Marital Status	1.9	19.0
8	Health Status	.9	40.0

The rank ordering of the spheres, derived from Rogoff-Ramsoy and Clausen (1977), from most frequently changing to most enduring, is suggestive of the frequency with which the spheres change. Thus, the major activity of an individual changes most frequently, followed closely by the composition of his household, his employment and/or occupation, and his residence. On the other hand, health status, marital status, family status and education change much less frequently.

One approach to the collection of life history data is the "life history matrix" as shown in Figure III-2. This matrix, focusing on migration, occupation, education and family history, was found to be an exceptionally valuable data collection technique. In a study of migrants and squatters in Rio de Janeiro the matrix

> . . . helped a great deal in creating interview rapport. Filling out the matrix was a joint task and non-threatening. Reliability was excellent because memory could be aided by moving back and forth among the several areas of the respondent's life. Omissions and inconsistencies showed up easily and could be corrected immediately before proceeding to the next items (Perlman, 1974:5).

A life history matrix including the following items will provide valuable indicator data.

MARITAL HISTORY
BIRTH TIMING/REPRODUCTIVE HISTORY
HISTORY OF HOUSEHOLD COMPOSITION
EDUCATION, TRAINING, AND SKILL HISTORY
OCCUPATIONAL HISTORY
LOCAL MOVEMENT HISTORY
MIGRATION HISTORY
INTERNATIONAL MIGRATION HISTORY

PROGRAM OF DATA COLLECTION

The foregoing is only suggestive of the many ways in which the indicators discussed in Part II could be collected. Once a program of social data collection is launched, experience will be the best guide to combinations of data and procedures.

A number of principles and approaches related to possible data collection methods and scheduling have been outlined. This section suggests one approach to the scheduling of the data. There are, however, many ways in which the indicators suggested here could be combined over the collection period.

Two major departures from the traditional approaches to data col-

FIGURE III-2

LIFE HISTORY MATRIX

		MIGRATIONAL HISTORY						OCCUPATIONAL HISTORY				EDUC. HISTORY	FAMILY HISTORY
		(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Year	Age	Name of Place	Municipality	State	Size Classification	Type Residence	Reason for Move	Type of Work	Job Classification	Job Location	Reason for Job Change	Schooling	Marriages, Separations, Births, Deaths, etc.
1969													
1968													
1967													
1966													
. . .													
1904													

Source: Janice Perlman, Methodological Notes on Complex Survey Research Involving Life History Data (Berkeley: Institute of Urban and Regional Development, University of California, 1974), p. 6.

lection have been identified, time diaries and a life history matrix. Both of these instruments require extensive development, coding, and processing and thus do not recommend themselves to frequent collection. A cycle of five or ten years would appear quite adequate for them. Experience has shown that time diary information is quite stable over time. This fact, coupled with the possibility that the diary information could be updated with well designed activity lists on a more frequent basis, suggests a long collection cycle.

Because of the wide-ranging uses to which the time budget data could be put, and because Statistics Canada has already undertaken extensive development work in the time budget area, it is suggested that time budget methodology be given early priority in any data collection program. Once the data which it can provide has been developed questions to trace changes in it can be incorporated in later surveys.

It is recommended that development of a life history matrix be started in the early stages of any data collection program and that a life history survey be undertaken within five years of the start of the program. The data would only need to be collected every ten years. It would be quite possible, however, to update it on annual surveys.

In addition to the collection of the time budget and life history data a regular program for the collection of other indicators is suggested. Tables III-3 to III-5 list the indicators which should be collected on an annual, biennial and quinquennial basis.

In general it is felt that indicators of current status, particularly those related to health, household composition, paid work and personal economic situation should be captured yearly. A number of other measures for which relatively recent data would be desired, but which could be considered fairly stable, are relegated to a biennial cycle. A number of other measures, predominantly attitudinal are suggested for much less frequent collection. Most of the measures recommended for quinquennial collection could be combined on a staggered basis with the annual and biennial data.

A number of suggestions related to the content of any particular instrument can be made. In general, it is useful to collect all economic data, relating to both market and non-market production, on the same instrument. Such data are mutually supportive and need to be considered together at the analysis stage. Similarly, it is recommended that the data on residential environment and on residential mobility be collected together.

An area of particular interest and breadth is leisure. A great deal of insight into this area will be gained through the time diaries. This data can be updated on a rotational basis with the various categories of leisure being included on the annual survey in alternate years. Thus, socialization, organizational activity and culture could

Table III-3

INDICATORS RECOMMENDED FOR ANNUAL COLLECTION

HEALTH STATUS OF THE INDIVIDUAL
EDUCATION, TRAINING, AND SKILL ATTAINMENT
PARTICIPATION IN PROGRAMS
EMPLOYMENT OPPORTUNITIES
PERSONS SEEKING GAINFUL EMPLOYMENT
PERCEPTIONS OF EMPLOYMENT OPPORTUNITIES
SATISFACTION WITH EMPLOYMENT OPPORTUNITIES
SATISFACTION WITH PAID WORK
ASPIRED WORK STATUS
SATISFACTION WITH NOMINAL WORKING TIME
ABSENTEEISM
JOB TURNOVER
INDUSTRIAL DISPUTES-STRIKES AND LOCKOUTS
OCCUPATIONAL HEALTH AND SAFETY
PERCEIVED OCCUPATIONAL HEALTH AND SAFETY
PERCEPTIONS OF INDUSTRIAL DISPUTES
SATISFACTION WITH JOB
FACTUAL INCOME, ASSETS, INDEBTEDNESS AND EXPENDITURE DATA
PERCEIVED FINANCIAL SITUATION
SATISFACTION WITH FINANCIAL SITUATION
PERCEIVED "STANDARD OF LIVING"
SATISFACTION WITH "STANDARD OF LIVING"
PERCEIVED PERSONAL REMUNERATION RELATIVE TO PEER GROUP
PERCEIVED PEER GROUP REMUNERATION RELATIVE TO OTHER OCCUPATIONAL GROUPS
SATISFACTION WITH REMUNERATION RELATIVE TO PEER GROUP
SATISFACTION WITH REMUNERATION OF PEER GROUP RELATIVE TO OTHER OCCUPATIONS
CONSUMER GRIEVANCES
MOVER/STAYER IDENTIFICATION
MIGRANT/NON-MIGRANT IDENTIFICATION
IMMIGRATION/CITIZENSHIP STATUS

Table III-4

INDICATORS RECOMMENDED FOR BIENNIAL COLLECTION

SATISFACTION WITH MARITAL STATUS
ASSESSMENT OF INTERPERSONAL RELATIONSHIP BETWEEN THE SPOUSES
SATISFACTION WITH COMPOSITION OF THE HOUSEHOLD
CHILD CARE ARRANGEMENTS OUTSIDE SCHOOL
THE SUCCESS OR FAILURE OF CHILD CARE AND SOCIALIZATION
SATISFACTION WITH CHILD CARE ARRANGEMENTS
SATISFACTION OF PARENTS WITH RELATIONSHIP WITH THEIR CHILDREN
CONSUMPTION BENEFITS (SATISFACTION)
EXPENDITURES ON LEISURE ACTIVITIES
POSSESSION OF LEISURE ASSETS
LEISURE TIME INTERESTS
PERCEIVED CONSTRAINTS ON LEISURE TIME OPPORTUNITIES
SATISFACTION WITH LEISURE
MODE OF TRAVEL TO WORK AND TO MAJOR PUBLIC FACILITIES AND SERVICES
SATISFACTION WITH ACCESSIBILITY
SATISFACTION WITH THE DWELLING UNIT
AVAILABILTY OF COMMUNITY SERVICES
SATISFACTION WITH GOVERNMENT SERVICES
EVALUATION OF NEIGHBOURHOOD BY INTERVIEWER
QUALITY OF NEIGHBOURHOOD AS PERCEIVED BY RESPONDENT
SATISFACTION WITH NEIGHBOURHOOD QUALITY
REASON(S) FOR LOCAL MOVE(S)
FUTURE LOCAL MOVEMENT INTENTIONS
REASONS FOR MIGRATING
FUTURE (INTERNAL) MIGRATION INTENTION
REASONS FOR IMMIGRATION
FUTURE (INTERNATIONAL) MIGRATION INTENTION

Table III-5

INDICATORS RECOMMENDED FOR QUINQUENNIAL COLLECTION

SATISFACTION WITH ONE'S OWN HEALTH
KNOWLEDGE OF HEALTH RISKS
PERCEPTIONS OF HEALTH RISKS
KNOWLEDGE OF THE HEALTH CARE SYSTEM
PERCEPTIONS OF THE HEALTH CARE SYSTEM
SATISFACTION WITH THE HEALTH CARE SYSTEM
BIRTH CONTROL METHODS IN USE
IDEAL FAMILY SIZE
DESIRED (PREFERRED) FAMILY SIZE
ANTICIPATED FAMILY SIZE
BIRTH CONTROL/CONTRACEPTIVE KNOWLEDGE
BIRTH CONTROL/CONTRACEPTIVE ATTITUDES
CONTENT OF SOCIALIZATION
RESOLUTION OF DISPUTES IN SPECIFIC AREAS OF THE FAMILY
PREFERRED ROLE ASSIGNMENT
ROLE STRAIN
SATISFACTION WITH RELATIONSHIPS WITHIN THE KIN NETWORK
TYPE AND VALUE OF ASSETS INHERITED FROM KIN
PROPOSED DISPOSITION OF OWN ASSETS
PHYSICAL ACCESSIBILITY OF PROGRAMS
ECONOMIC ACCESSIBILITY OF PROGRAMS
PERCEIVED ACCESSIBILITY OF PROGRAMS
SATISFACTION WITH THE ACCESSIBILITY OF PROGRAM
EXPENDITURES ON PROGRAMS
SATISFACTION WITH PROGRAM
ASPIRATIONS REGARDING DESIRED WORK PATTERN
OCCUPATION OF PARENTS AND CHILDREN
EDUCATIONAL ATTAINMENT OF PARENTS AND CHILDREN
PERCEIVED MOBILITY
EXPECTATIONS OF SOCIAL MOBILITY FOR ONE'S CHILDREN
SATISFACTION WITH CAREER
PERSONAL COLLECTION OF CULTURAL ARTIFACTS
INTEREST IN POLITICAL AFFAIRS
POLITICAL ORIENTATION
POLITICAL EFFICACY
POLITICAL TRUST
SATISFACTION WITH POLITICAL LIFE
INTEREST IN RELIGION
RELIGIOUS ORIENTATION
SATISFACTION WITH RELIGION
JUDICIAL ORIENTATION
ATTITUDES TOWARD THE JUDICIAL SYSTEM
SATISFACTION WITH THE JUDICIAL SYSTEM

be included one year with general leisure and indoor and outdoor recreation being included the next.

Other areas which could usefully be combined are health and education, and politics, religion and justice.

One question not addressed at length in this study is that of a longitudinal survey. Review of experience with this approach suggests that the greatest losses in the sample occur during the first and second panel years. If a general survey based on a sample of 10,000 were drawn the first year with the intention of following up a panel of say five thousand, the five thousand could be randomly selected from the initial sample with any desired stratification. An approach such as this should be given some consideration.

BIBLIOGRAPHY: DESIGN, TIMING AND INSTRUMENTATION

1. Fienberg, Stephen E. "Perspective Canada as a Social Report", Social Indicators Research, II, 2 (September 1975), 153-174.

2. Holmes, T.H. and R.H. Rahe. "The Social Readjustment Rating Scale", Journal of Psychometric Research, Vol. II, 1967.

3. Johnson, Harry G. and J. Winder. "Lags in the Effects of Monetary Policy". Working Paper presented for the Royal Commission on Banking and Finance. Ottawa: The Queen's Printer, 1974.

4. Morgan, James N. et al. Five Thousand American Families - Patterns of Economic Progress, Vol. I. Ann Arbor, Michigan: Survey Research Centre, ISR, University of Michigan, 1974.

5. Perlman, Janice. Methodological Notes on Complex Survey Research Involving Life History Data. Berkeley: Institute of Urban and Regional Development, University of California, 1974.

6. Rodgers, Willard L. and Philip E. Converse. "Measures of the Perceived Overall Quality of Life", Social Indicators Research, Vol. 2, No. 2, September 1975, pp. 127-152.

7. Rogoff-Ramsoy, Natalie and Sten-Erik Clausen. "Events as Units of Analysis in Life History Studies". Oslo: Institute of Applied Social Research, 1977. Paper prepared for the SSRC Conference on the National Longitudinal Surveys, Washington, D.C., 1977.

THE INSTITUTE OF PUBLIC AFFAIRS

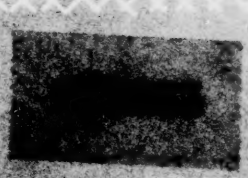
Aided by a grant from the Rockefeller Foundation, Dalhousie University established its Institute of Public Affairs in 1936. Conceived as an experimental centre, it has served as a bridge between the university and the community in the areas of social science and public policy.

In the Canadian experience, the Institute of Public Affairs is probably the oldest existing university branch with a record of continuous performance in research and education carried out in active association with the community.

The Institute has had a clearly discernible influence in the life of the region. Its functions, programs, and methods of operation have anticipated society's questioning of the traditional roles of universities. In initiating as well as in responding to change, the functions of the Institute have grown, as have the demands upon it.

Program Areas

For over forty years, the Institute of Public Affairs has worked in four closely interrelated fields:

(1) Industry, with programs in management development, labour education, and labour-management relations
(2) Public administration, with emphasis on local government
(3) Regional and urban studies, with focus on economic, social, and governmental issues
(4) Services to citizens, organizations, and community groups

The Institute library contains specialized collections of material, largely unavailable in any other library in the Atlantic Region, concentrated in the main areas of our program interests. It serves both the public and the university.